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MAJOR GENERAL LEONARD WOOD

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Volume One

UNIVERSAL MILITARY TRAINING

MAJOR GENERAL LEONARD WOOD
UNITED STATES ARMY

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Contents

PAGE

PREFACE 9

INTRODUCTION 11

CHAPTER

I. PREPAREDNESS 19
Organization, material and moral.

II. A GLANCE AT OUR MILITARY HISTORY . . 26
Lack of accurate teaching; recruiting during the Revolution; lessons of the Revolution; the War of 1812; the Army and Navy compared; the Indian Wars; the Mexican War; the Civil War; the War with Spain.

III. ARBITRATION AND AVOIDANCE OF WAR—SOME EFFECTS OF WAR 50
The principles of arbitration; the causes of war; leagues to enforce peace; the results of war.

IV. TIME NECESSARY TO TRAIN MEN 66
Discipline; youthful training; camps of instruction; disadvantages of a mercenary army.

V. DUTIES OF PARENTS 77

VI. BOY SCOUTS 81

Contents

CHAPTER PAGE

VII. Volunteers and Militia 84
The volunteer system—its inherent unfairness; the militia—sacrifice of its members.

VIII. Universal Military Service 89
How it may be applied; military strength resulting; democracy of the system; its inception and growth in Europe; Sermon of Rev. Wm. T. Manning; views of President Charles E. Eliot of Harvard.

IX. Changes in Organization Resulting from the Present War 105
Material; aircraft; artillery; machine guns; obstacles; bomb throwers; motor transport; aerial torpedoes. Effect of these devices on the conduct of war.

X. Special Training and Additional Training 117
Reservists.

XI. General Staff Corps 121
Its foundation and duties.

XII. The System of Military Education in the United States 126
Service Schools; State colleges; Military schools.

XIII. Standardization and Coordination of Instruction and Training . . . 132

XIV. The Plattsburg Idea—United States Military Training Camp 134
History of the movement.

Contents

CHAPTER PAGE

XV. Service Schools and Educational Institutions Giving Military Training in the United States Army 139

West Point; Army War College; Army Staff College; Army Service School; Army Signal School; Army Field Engineering School; Army Field Service and Correspondence School for Medical Officers; Coast Artillery School; Engineer School; Medical School; Garrison Schools; Schools for Enlisted Men; School for Bakers and Cooks; School of Musketry; School of Field Artillery; Signal Corps Aviation School.

XVI. American Armies 155

United States; Argentina; Bolivia; Brazil; Canada; Chile; Columbia; Equador; Mexico; Peru.

XVII. Asiatic Armies 175

Japan; China.

XVIII. European Armies 188

General Discussion; Austria-Hungary; Belgium; Great Britain; Australian System; Bulgaria; Denmark; France; Germany; Greece; Holland; Montenegro; Norway; Rumania; Russia; Spain; Serbia; Sweden; Switzerland—the Swiss System; Turkey.

Appendix I 305

Appendix II 311

Appendix III 340

Preface

In the five volumes comprising the National Service Library effort has been made to present to the American people in condensed, convenient form information which is now obtainable only by the purchase and reading of a large number of books and the reference to many official reports of our own and foreign nations.

In addition, the weakness of our military policy and methods has been pointed out in a manner to convince all whose minds are not blinded by prejudice that this great republic has arrived at the parting of the ways; that the time has come when we must cast aside selfish individualism and accept the principle of universal service to the state, or else we must yield what we have been taught to consider vital policies and be satisfied with a minor sphere in the world's affairs. This series is not one devoted to destructive criticism; the remedy for our national ills is plainly demonstrated.

The Secretary of War has approved the general idea of the preparation of books in this form bringing into one place and into convenient and accessible size a general survey of the military situation in this and other countries.

Introduction

LEONARD WOOD comes of a family who were residents of Massachusetts in the earliest days of the settlement of Plymouth. Peregrine White, the first child of the colony, is his direct ancestor, and the other main family lines also run back to the first years of the Plymouth settlement.

He was born in New Hampshire in 1860 during the temporary residence of his parents in that State. He graduated from the Harvard Medical School with the class of 1883, and after a period of hospital service took, in 1885, the prescribed examination for the Medical Department of the regular army, was accepted, and after a brief service as acting surgeon in Arizona was commissioned in the regular service in 1886 as first lieutenant assistant surgeon. He served in Arizona and New Mexico from 1885 to 1889 and was on Indian service during that period under the commands of General McCook and General Miles, participating in the field operations during the Geronimo campaign as a member of the famous Lawton expedition which captured Geronimo and brought to an end the long years of a state of war. Wood was the only officer who

went through the entire campaign with Lawton. He received, in recognition of certain specific acts, the highest distinction which an American soldier can receive—the Congressional Medal of Honor. This corresponds to the Victoria Cross in the English service.

After four years of hard service in field training in Arizona came four years on the Pacific coast with the usual routine military work in camp and field, then a period of service in the South and a short one in Washington terminating with the Spanish War.

Wood announced when he entered the army that he intended to swing over into the line if an opportunity offered, and his work and reading always had this in mind. Much of his service with Lawton was as a line officer commanding troops.

As a result of that service and work when the break came with Spain he stood ready for an opportunity for line work, indorsed by many of our best officers for appointment as field officer or regimental commander. Then came the organization of the First United States Volunteer Cavalry, formally known as the "Rough Riders"—a regiment made up largely of men from the West raised on the plan suggested by Senator Warren. Mixed in with the Western men was a very large percentage of the best men from the East and South. Three of these regi-

ments were raised. Secretary Alger intended to give one to Roosevelt and one to Wood. Roosevelt said that he did not feel competent to take one, but would like to go with Wood as second in command, and so it was that these two men started off to the Spanish War—a war which meant so much for both of them. The organization of the regiment, thanks to well-thought-out plans prepared by Wood long before, was promptly accomplished, and within three weeks from the day of its organization the First United States Volunteer Cavalry, mounted and equipped at war strength, was ready for its intensive training. It was one of the four volunteer regiments which accompanied the regular forces to Santiago, and the only one of the volunteer regiments which participated in the first fight at Guasimas, and also played an important rôle at San Juan Hill.

The commander of the Second Cavalry Brigade which the regiment served was disabled by sickness, and as a result of his work at Guasimas General Shafter cabled a request to the President that Wood be appointed a brigadier general of volunteers. This was done, and thus Wood fell in command of the brigade and Roosevelt of the regiment. Once the city of Santiago was in our hands, Wood was assigned as governor of the city and placed in control of it and of the captive army. Shortly afterward, on General

Lawton's relief from duty because of sickness, Wood became governor of the conquered territory—the eastern harbor of Cuba. Like many others, General Wood was stricken with yellow fever, but unlike most he did not return to the home land, but spent his convalescence at his desk.

The fight against disease, the constructive work, are all matters of history, and these accomplishments resulted in his being appointed military governor of Cuba in December, 1899. With this new appointment came his reappointment as major general of volunteers. The reconstruction of Cuba, the school system, the laws of public works, electoral laws, and others too numerous to mention, winding up with the Cuban constitution, were deeds accomplished together with the wonderful sanitary work of Walter Reed and others. With the reorganization of the army in 1901 President McKinley appointed Wood a brigadier general in the regulars, continuing him as a major general of volunteers. In 1902 Cuba was turned over to her people free, unencumbered and well equipped for her career as a nation.

Wood's next duty was in Europe as a military observer of the maneuvers of the German army in 1902. On this occasion he came in contact for the first time with Lord Roberts, the ambassador to France, and others.

Then came the Philippine detail made by his own request, first as governor of the Moro Province with instructions to bring order out of chaos and establish civil government among the Mohammedan people of this portion of the Philippines. He was also commanding general of troops. En route to the Philippines Wood spent three weeks in Egypt at the invitation of Lord Cromer, and then went on and spent several weeks in Java as the guest of the governor general. Both these visits were made with the special purpose of securing information as to how these governments handled their Mohammedan subjects.

Three years among the Moros with much hard fighting and civil constructive work resulted in a well-ordered and prosperous government known as the Moro Province—to-day it is a monument to the work done and that followed under others. Then the command of the Philippine division became his for two years. It was a period of hard work and anxiety for during this period came the crisis of 1907 which for a time threatened war with an Asiatic power. At the same time was being done the bulk of the work on plans of fortifications for harbor defense.

Leaving the Philippine Islands in 1908, Wood spent six months in Europe with a view to studying at first hand the military conditions there.

During this period he was present with both the German and French armies during maneuvers and had an excellent opportunity of securing a first-hand view of the Swiss military system. The work was varied by visits to Saragossa as head of the American commission sent to Spain on the occasion of the one hundredth anniversary of the Siege of Saragossa.

Returning to the United States, he was in command of the Eastern Department until April, 1910, then was sent as a special ambassador to the Argentine on the occasion of the centennial of that nation, then chief of staff for four years —years of hard work, years when the army was slowly but surely struggling along the deeply worn trail toward a new road of modern military organization.

At this period began the fight for national preparedness through national service—a hard struggle and one crowded with difficulty at first but now rapidly gaining headway. Wood's motto had always been "Pitiless publicity; turn on the light." All the world knew our condition except the American public. They alone did not know how helplessly unready the country was to take up its own defense, how a people heavy with wealth in resources were sleeping confronted by great peril, soothed by flattery and trusting to wealth in numbers with little sense of individual responsibility and no appreciation of the need of

organization or of the fact that the real sinews of war are not numbers but organization—an organization which must be not only material but moral, an organization based upon a sense of individual responsibility for service on the part of all physically fit.

Not with fond sigh or dream that peace is here
Shall we uprear
That peace which comes of soul attuned to stress,
Of armoured calm and iron gentleness,
Of valiant youth, and wisdom skilled to bless,
And woman's cheer.

So peals the question riving our long rest—
Give we our best?
Arm we with zeal and labour that the day
Of ultimate battle find us not at play?
Ay, with new hearts to dare the old great way
We yet shall hold, by gift of each man's best,
Our sires' bequest.

Archibald Fox.

I

Preparedness

COINCIDENT with peace congresses and efforts toward world peace, there has gone forward in almost all countries preparation for war. A great crisis, a titanic struggle, seemed to be approaching. The Balkan War was the first gust of the hurricane.

The world has never before seen such extensive, thorough, and comprehensive military preparedness as exists to-day. This preparedness may or may not be unfortunate; it exists, however, in varying degrees, throughout all the great nations, excepting China and ourselves. It is preparedness of a completeness and thoroughness which has never before been equaled or even attempted. All the resources of great nations have been so coordinated that practically the entire power of each nation has been made immediately available for offense or defense. This preparedness has included not only the armies, the purely military type of preparedness, but also industrial arts in practically all their branches—steel and iron, foodstuffs and clothing, transportation and communication, and chemistry.

As nations grow richer, and as their civilization increases, there is more and more to protect, not only in the home country, but usually on the high seas and in distant colonies or possessions. There is also more to tempt attack and aggression. Indeed, great wealth and aggressive commerce, combined with unpreparedness, are two of the provocations of war. Steam has divided time and distance by ten, and organized preparedness has made attack almost immediate once it has been decided on. In a word, everything is in favor of the prepared nation and against the unprepared.

The preparedness of to-day is that of the highly civilized nation, and is the result of careful, intelligent study of national resources and an adaptation of them to national policy. It is characterized by general military obligation and training. It is the preparedness of nations with convictions, of peoples who realize that there are many things more valuable than life itself. It is a preparedness founded on a determination to defend one's country and her institutions, and to pass on the bequests of the fathers to the children. It recognizes that right and justice are not of themselves adequate protection.

From the training of the men in this scheme of preparedness come better bodies, greater respect for law and the constituted authorities, a higher sense of obligation to the nation, a bet-

ter physical and moral man—altogether a more efficient man, not only on the battle field, but in life's economic and moral conflict.

This kind of preparedness is founded upon both a material and a moral organization. The material organization is of that kind which may be described as the coordination and direction of all the industrial, material, intellectual, and financial resources of a nation in such a manner as to render available the full strength of the nation in the minimum of time and to continue the pressure for a maximum period. This material organization must be founded upon a moral organization which has built up in the soul of every citizen a proper sense of obligation for service to the nation, not only in time of peace, but in time of war. This degree of preparedness—preparedness which means the organization of the entire national strength so that it may be employed to the best advantage—cannot be accomplished offhand, but only through prolonged study of ways and means. It requires time—much of it—and time cannot be bought. The organized and prepared nation to-day, with an aggressive policy, waits not for the rich, flabby, timid nation to prepare. All this may not be chivalry, but it *is* facts, and it is with facts, not idle fancies, that we are dealing. These are days of stern reality—days when gold must be hardened with iron. Those who do not

heed the lesson which is written in characters such as even the blind can see, and proclaimed in tones such as even the deaf may hear, can look neither to God nor to man for protection or consideration, for the warning has been long sounded and broadly published. No nation which has its safety at heart can question the need of organized preparedness. It is preparedness against war—a real peace insurance—and, incidentally, preparedness for a better, more moral and more efficient individual and national life.

The situation is clear. Have we anything which we consider worth defending? Our country, our religion, our families, our institutions, property, or convictions? Have we the means and the training to defend effectively that which we believe to be worth defending? Are we sufficiently intelligent to realize that we cannot meet, with any hope of success, men who are as intelligent as we are, who are just as patriotic, whose ideals are just as high, who have just as sincere a belief in the righteousness of their cause, and who, in addition, are thoroughly equipped, thoroughly trained, and well led? It would seem to be unnecessary to submit such a proposition to an intelligent people; but, unfortunately, our people have for many years been systematically misled. They have had impressed upon them their transcendent military excellencies and their special qualifications as

soldiers. They have been told, although there is nothing in our history to warrant it, that, untrained, we were equal to as good men trained and well led. They have also been told by the nonresistant, peace-at-any-price type that war must be avoided at all costs. They have had impressed upon them the immensity of our resources and our wealth. They have seldom if ever been told that numbers without organization and training mean little in modern war; that the numbers of an unarmed and untrained people have no deterrent effect upon a smaller but thoroughly trained and highly organized nation. They have forgotten that the wolf is not frightened by the size of a flock of sheep. They have been led to believe that our unorganized resources would be a determining asset in modern war. They are an asset, but only if there is organized preparation enough to meet the first shock of war and to give time to develop and make use of them. Our people have not learned that unorganized resources are of no more value in the swift onrush of modern war than would be an undeveloped gold mine in Alaska in a crisis in Wall Street.

What we need in this country, and need very much, is pitiless publicity—the plain truth about our military history and our real condition as to preparedness. The rest of the world is informed; our people have gradually gone to sleep

under a skillfully applied system of verbal massage. In considering the size of our country and our numbers, they have forgotten the lack of organization, lack of training and system; in fact, lack of almost everything in the way of that preparedness which characterizes the great nations of to-day.

This country has never, single-handed, engaged in war with a first-class power prepared for war. It is an experience which I hope we shall never have, but there is no reason to believe that this hope will be gratified; that our history is to be unlike that of other people; and there is every reason, based on historical precedent, to be convinced that not only shall we have such a war, but a number of them. Nothing can be more endangering in this respect than a reputation for weakness. The perils of our first years are greater perils to-day.

I cannot recommend to your notice measures for the fulfillment of our duties to the rest of the world without again pressing upon you the necessity of placing ourselves in a condition of complete defense and of extracting from them the fulfillment of their duties toward us. The United States ought not to indulge a persuasion that, contrary to the order of human events, they will forever keep at a distance those painful appeals to arms with which the history of other nations abounds.

There is a rank due the United States among nations which will be withheld, if not absolutely lost, by a reputation for weakness.

If we desire to avoid insult, we must be able to repel

it; if we desire to secure peace, one of the most powerful instruments of our rising prosperity, it must be known that we are at all times ready for war.—*George Washington, Fifth Message.*

If we are going to live as a nation, we must prepare to defend what we have. All our wars have been fought with the aid of powerful allies, or against inferior forces and peoples, or against a portion of our own people as untrained, unorganized, and unprepared as were the national forces.

II

A Glance at Our Military History

MILITARY history and policy as a rule, have not been frankly or intelligently taught. We have been led to believe we accomplished wonders in the Revolution; that a superb spirit of self-sacrifice characterized our people through the long years of that struggle; that patriotic thousands rushed to the colors; that the embattled farmers stood on every hand eager to join issue with the foe. Good men did respond, as they respond in all countries in all wars—the class of men who represent whatever is best in the nation; but after the first excitement was over enlistments year by year steadily decreased. The dull, heavy drag and wastage of war killed such enthusiasm as had been temporarily aroused in the mass of the people; and the struggle had to be carried on by the relatively few who furnished the spirit that drove and kept up the flagging interest of the many. There was no system. Everything rested upon a blind confidence in the volunteer spirit of the people. The best and most patriotic came first. Others came later under the inducement of bounties, grants of

land, or, as in the case of some negroes, promises of freedom, and usually as a result of the desperate personal efforts of the leaders. This rapid shrinkage in numbers after the cooling off of the first enthusiasm tells the story, not alone of what happened among our own people, but of what has happened among all peoples who trust not to some well-thought-out system but to volunteers and haphazard methods. The rapid shrinkage year by year of the force with the colors tells the story of war waged by nations which have not a well-thought-out military system, one under which the elements of chance and uncertainty are reduced to the minimum and the burdens of war placed as evenly as possible upon all classes of the population.

Such a system did not exist in the Revolution, nor has such a system been placed in operation in this country up to the present time. As a result, our wars have been very wasteful of life and resources. Our volunteer and militia officers, untrained in time of peace, have been unequal at first to the demands of good leadership. Their subsequent instruction and training have been gained at the cost of the lives of their men—a rather brutal and costly procedure. A policy of peace with honor should not be coupled with a lack of military system, which results in the wanton waste of the lives of our people when circumstances do compel an appeal to arms.

General Henry Lee ("Light-Horse Harry Lee" of the Revolution) stated the matter truly and clearly when he said:

> Convinced as I am that a government is the murderer of its citizens, which sends them to the field uninformed and untaught, where they are to meet men of the same age and strength mechanized by education and discipline for battle, I cannot withhold my denunciation of its wickedness and folly!

It is not pleasant, but it is extremely instructive, to read Washington's reports and letters and those of the other heroic figures who, with him, held the tottering forces of the colonies together, and finally, with the aid of France and a large measure of bad leadership on the part of England, eventually brought the war to a successful close.

A few brief quotations from Washington's letters will put the situation clearly before the seeker after truth:

> [*1775;*] Such a dearth of public spirit and such want of virtue, such stock-jobbing and fertility in all the low arts to obtain advantages of one kind or another in this great change of military arrangement, I never saw before, and pray God's mercy that I may never be witness to again. What will be the end of these maneuvers is beyond my scan. I tremble at the prospect. We have been till this time enlisting about three thousand five hundred men. To engage these I have been obliged to allow furloughs as far as fifty men to a regiment, and the officers, I am persuaded, indulge as many more. The Connecticut troops will not be prevailed upon to stay

longer than their term, saving those who have enlisted for the next campaign, and are mostly on furlough; and such a mercenary spirit pervades the whole that I should not be at all surprised at any disaster that may happen.

. . . . . .

To place any dependence upon militia is assuredly resting upon a broken staff. Men just dragged from the tender scenes of domestic life, unaccustomed to the din of arms, totally unacquainted with every kind of military skill (which is followed by want of confidence in themselves when opposed by troops regularly trained, disciplined, and appointed, superior in knowledge and superior in arms) are timid and ready to fly from their own shadows.

[*1780:*] Had we formed a permanent army in the beginning, which, by the continuance of the same men in service, had been capable of discipline, we never should have had to retreat with a handful of men across the Delaware in 1776, trembling for the fate of America, which nothing but the infatuation of the enemy could have saved; we should not have remained all the succeeding winter at their mercy, with sometimes scarcely a sufficient body of men to mount the ordinary guards, liable at every moment to be dissipated, if they had only thought proper to march against us; we should not have been under the necessity of fighting Brandywine, with an unequal number of raw troops, and afterwards of seeing Philadelphia fall a prey to a victorious army; we should not have been at Valley Forge with less than half the force of the enemy, destitute of everything, in a situation neither to resist nor to retire; we should not have seen New York left with a handful of men, yet an overmatch for the main army of these States, while the principal part of their force was detached for the reduction of two of them; we should not have found ourselves this spring so weak as to be insulted by 5,000 men, unable to protect our baggage and magazines, their security depending on a good countenance and a want of

enterprise in the enemy; we should not have been the greatest part of the war inferior to the enemy, indebted for our safety to their inactivity, enduring frequently the mortification of seeing inviting opportunities to ruin them pass unimproved for want of a force which the country was completely able to afford, and of seeing the country ravaged, our towns burnt, the inhabitants plundered, abused, murdered, with impunity from the same cause.

Nor have the ill effects been confined to the military line. A great part of the embarrassments in the civil departments flow from the same source. The derangement of our finances is essentially to be ascribed to it. The expenses of the war and the paper emissions have been greatly multiplied by it. We have had a great part of the time two sets of men to feed and pay—the discharged men going home and the levies coming in. This was more remarkably the case in 1775 and 1776. The difficulty and cost of engaging men have increased at every successive attempt, till among the present lines we find there are some who have received $150 in specie for five months' service, while our officers are reduced to the disagreeable necessity of performing the duties of drill sergeants to them, with this mortifying reflection annexed to the business, that by the time they have taught these men the rudiments of a soldier's duty their services will have expired and the work recommenced with a new set. The consumption of provisions, arms, accouterments, and stores of every kind has been doubled in spite of every precaution I could use, not only from the cause just mentioned but from the carelessness and licentiousness incident to militia and irregular troops. Our discipline also has been much hurt, if not ruined, by such constant changes. The frequent calls upon the militia have interrupted the cultivation of the land, and of course, have lessened the quantity of its produce, occasioned a scarcity, and enhanced the prices. In an army so unstable as ours order and economy have been impracticable. No person who has been a close observer of the progress of our affairs can

doubt that our currency has depreciated without comparison more rapidly from the system of short enlistments than it would have done otherwise.

There is every reason to believe that the war has been protracted on this account. Our opposition being less, the successes of the enemy have been greater. The fluctuation of the army kept alive their hopes, and at every period of the dissolution of a considerable part of it they have flattered themselves with some decisive advantages. Had we kept a permanent army on foot the enemy could have had nothing to hope for, and would in all probability have listened to terms long since.

The response of the young American nation to the appeals of its leaders can be best judged when it is remembered that in 1776 we had under arms some 89,000 men, and in 1781 our total forces for the year amounted to 29,400, only one-third the number in the early stages of the war. Washington begged for long-service troops. He predicted that short enlistments, necessitating new forces of volunteers, would prove uncertain and unsatisfactory, and his predictions were fulfilled, even exceeded in every detail. Recruiting soon fell away. It became increasingly difficult to enlist men. Then began the abominable system of bounties—a system which, with the experience of a century, should have been condemned to eternal oblivion, but which still has its misguided and ignorant adherents and supporters—supporters who either do not know or willfully disregard the teachings of history.

Bounties mounted with rapid strides from a few dollars to between seven and eight hundred dollars, with grants of land worth several hundred dollars or more. At their maximum, bounties may be fairly estimated as amounting to not less than twelve hundred dollars. In other words, we were soon buying men as you would buy cattle. Washington made frantic appeals for men. Patriotic men throughout the colonies strove to stimulate interest, to the end that forces might be recruited. Freedom was offered to slaves if they would enlist. In fact, everything was done that could be done by a desperate people loosely bound together, not yet sufficiently united to risk resort to the general draft. In all, 395,858 men were enrolled in the Revolutionary armies, and yet on no single day during the entire Revolutionary War was Washington able to place 20,000 fairly well-equipped and reasonably well-trained and disciplined troops in the field.

France came to our aid at a most critical moment. Only those who have gone into the military details of the Revolutionary struggle can appreciate how tremendous was the value of that aid in terminating the struggle in our favor.

Cost of the Revolution: Upton states that great as was the cost of the Rebellion, some three thousand millions of dollars, still greater in proportion to the population was the cost of the

Revolution. It was approximately three hundred and seventy millions of dollars.

Lessons of the Revolution: The lessons of the Revolution are:

(1) That for waging war a confederation is the weakest form of government. Nearly all the dangers which menace success are traceable largely to the inexperience of statesmen, whose position gives them dominant control of the military policy and sometimes of military operations; that the quasi-independent authority of States weakens the war power of the general government and increases greatly the cost of war both in men and money; that the weapons of a government must be its weapons, and not those of any composite part of the nation; in other words, Federal troops must be Federal in every sense of the word, and not dependent in any way upon State authorities.

(2) That the burdens of war must be evenly distributed upon all classes of the population.

(3) That enlistments must be of sufficient length to insure trained men and the fewest possible changes in enlisted personnel. To as great extent as possible they should be for the duration of the war. Short enlistments in war are productive of disaster, and are unduly expensive both in men and money.

(4) That any system of untrained volunteers and militia cannot be safely depended upon for

the conduct of war. Uninstructed and unorganized numbers cannot take the place of well-trained and well-disciplined troops.

The policy in military matters which followed on the heels of the Revolutionary War indicated that there was no wide and general appreciation among the people of the necessity for the adoption of a sound and intelligent military system. Half-hearted, ill-thought-out measures of reorganization followed. The Continental army was disbanded with the exception of one battery of artillery, known as the Alexander Hamilton Battery, which still exists in our service. A small regular unit was established, consisting of a mixed regiment of infantry and artillery. A little later it was expanded into a legionary corps, amounting to about two thousand and forty non-commissioned officers and men. The year of 1789 saw the organization of what is now known as the War Department. In 1791 there was a further reorganization of the forces, which fixed the strength at 1,216. A further reorganization added another regiment. Defeat at the hands of the Indians, especially the St. Clair defeat, emphasized the need of a more effective and stronger military establishment.

About this time Baron von Steuben recommended the legionary organization of all our forces. The legion was a small complete army, in a general way resembling our present division

in that it had something of all arms. It was a complete fighting unit. General Knox, at that time Secretary of War, presented to President Washington, and Washington presented to Congress, a strong approval of a plan for the classification and training of our entire male population between the ages of 18 and 60. Unfortunately this plan was never approved by Congress.

In 1798 a crisis with France arose. The President was authorized to raise a provisional army of ten thousand men. Washington was appointed to command this army with the rank of lieutenant general. The crisis passed, and this special force was never called into being. In 1802 further reorganization followed, and the little army was still further reduced. In the same year a step of great importance was taken. This was the establishment of the Military Academy at West Point. It had the strong approval of Washington, but perhaps the strongest and most favorable force behind it was the influence of Alexander Hamilton. This remarkable man clearly foresaw the need of an institution of this kind. McHenry, at that time Secretary of War, also urged the establishment of the academy. It was established first as a small school for engineers. The corps consisted of only twenty officers and cadets. From the day of its foundation it has been a strong, if

not the strongest, prop of our military establishment.

In the following years there were various reorganizations—sporadic changes would be a better term—in the composition of our little army. In 1812 there was a partial reorganization of the Quartermaster's Department, Commissary Department, and Ordnance Department. At this time there was also a marked increase in the number of cadets at the Military Academy, the number rising from twenty to two hundred and fifty.

In the interval between the Revolution and the War of 1812-14 there were various minor military activities. The most striking ones were Shays's Rebellion, a sporadic outbreak against taxation, and Harmar's Miami expedition. The former consisted of a force of malcontents which compelled the adjournment of the Supreme Court of the State of Massachusetts at Worcester and later attacked unsuccessfully the arsenal at Springfield for the purpose of destroying it. The movement was a protest against taxation. The latter, Harmar's Miami expedition, was a badly handled expedition against the Miami Indians, terminating in a disastrous attack upon the great Indian village. This was followed shortly by St. Clair's defeat in operations against the same Indians. In both of these expeditions the militia behaved badly, were undependable in action,

and were largely responsible for the defeat. Later came the Whisky Rebellion, due to opposition in western Pennsylvania to the enforcement of the excise laws.

In 1803 the President was given authority, under the act of March 3 of that year, to call upon the governors of such States as he saw fit for certain militia, equipped and ready for the field. The total was not to exceed eighty thousand officers and men. This authorization was incident to threatened trouble with Spain. All military operations during this period, whether offensive or defensive, depended almost exclusively upon the use of volunteers and militia. Unfortunately the act of March 3 empowered the governors of States to name the officers of volunteers. General officers were appointed by the President. This unfortunate legislation became the basis of the system employed throughout the Mexican War and the Civil War.

In 1807 our relations with England having become strained, the President was authorized to accept thirty thousand volunteers to be enrolled for a period of twelve months. This law provided also for the acceptance of militia organizations under their own officers, provided they volunteered as such. The same year under the act of March 3, 1807, the President was authorized to employ regular troops, under the same conditions as prescribed for the militia,

for the purpose of dispersing insurrections and enforcing the law.

It can be stated that the volunteer system and the militia system have invariably failed us in time of need. In this connection read Emery Upton's "Military Policy of the United States," or Mr. Huydeckoper's recent work, "Military Unpreparedness of the United States." In neither case is the trouble due to the quality of officers and men. They are a perfectly good lot as individuals, but they are not trained soldiers. The fault lies not in the inherent qualities of the personnel, but in the defects of each system.

The story of the War of 1812 and 1814 is soon told: Disasters on land, relieved to a small extent by the battle at Chippewa and the draw at Lundy's Lane; minor successes on the Thames; and the battle of New Orleans, fought after peace had been declared.

War was declared June 18, 1812. Our regular army had been greatly increased immediately prior to the declaration of war, but it was far from being a well-trained force. Most of the officers lacked sound training and the men were poorly instructed. It was a regular force only in name. To the 36,700 men comprising the regular force, volunteers and militia were added as rapidly as possible. In 1813 twenty new regiments were authorized. Enlistments in these were for one year. Most of the officers were

without adequate military training, and the force as a whole was lacking in those qualities which characterize well-organized and well-trained regular troops.

The general lack of system of the Revolution was again in vogue—again the bounty, the short-term man, the untrained officer, the wanton waste of human life in ill-directed military effort. Altogether, 527,000 men were put into the war. The British regular force at no time exceeded 16,800. Desertions, bickerings, failures of the militia in most fields, were characteristic of the war. England was then, as now, engaged in a life-and-death struggle with the greatest military power of the period—Napoleon—and made no strong military effort in this country. Canadian militia and Indians added to the British regular force, but were not of particular value. Commodore McDonough's really brilliant victory on Lake Champlain served to check the only move of the land forces of England, which for a time threatened to cut off New England through the movement attempted against New York by a force of about eleven thousand British veterans fresh from the peninsular campaign under General Prevost. The defeat of the British flotilla made further advance impracticable and the troops withdrew to Canada.

In 1813 came the Creek War, initiated by the capture and massacre of the garrison of

Fort Mims, Fla., including four hundred of the garrison, among whom were some hundred women and children. This war added much to the difficulties and complexities of an already difficult situation. The Indian force was small, not more than one thousand five hundred warriors. The American force was largely one of volunteers and militia, and its conduct was characterized, at a critical period of the campaign and after rendering good service, by acts of mutiny and insubordination. They wanted to go home. The energy and determination of Andrew Jackson saved the situation. We called to the colors for this war some fifteen thousand men.

New Orleans, fought January 1, 1815, shortly after the treaty of peace had been signed at Ghent, served in a measure as a consolation for a long series of failures on land, notable among them being the unsuccessful attempts on Canada and the disgraceful fiasco at Washington, where we had abandoned our capital after a loss of eight killed and eleven wounded to a force only a little over half that of the defenders. The lessons of the war were those of the Revolution repeated with even more force. Attempts were made, therefore, to secure a better organization. To this end the President on June 30, 1812, recommended that the officers of volunteers should be commissioned by the United States; and in

July of this year the law governing the entry of volunteers into the Federal service was so modified as to authorize the President, by and with the advice and consent of the Senate, to appoint all the company, field and general officers. These officers were to have the same pay and allowances as those of the regular army. This force, if it had been raised, would, as Upton says, have been a second regular army. Unfortunately, the measure did not succeed. Had the policy been adopted and a substantial force raised, Canada would have undoubtedly been successfully occupied and seized in a single campaign, as the British regular force was only about four thousand five hundred. There were various acts of refusal to furnish militia by governors of different States. The undependability of the militia as a military asset, incident to untrained officers, lack of discipline and uniformity of equipment, was too often evident. The conduct of the few regular troops was everywhere excellent, and indicated what could be accomplished when there was sound training and skillful leadership. In other words, the American military personnel was excellent, officer and man, but it lacked preparation and training excepting the good work of the regular troops.

The only real justification for pride in the operation of this war is found in the excellent work of the navy, which, always under Federal

control, rendered uniformly good service. It was of great assistance at the battle of the Thames, saved the army at Plattsburg, and terminated the British invasion. It rendered good service also at Bladensburg and Baltimore, New Orleans, and Norfolk. It was unable, however, to make substantial headway against the great naval power of England. Although it did as much as a small navy could do against one many times stronger, the end of the war saw England securely in command of the sea with her commerce greatly increased.

American children and youth are not taught the real facts of our military history, but given a distorted and entirely erroneous impression of it, especially of the Revolution and the War of 1812 and 1814. They are taught nothing of the great basic defects which have always underlain our military policy, and which still menace its effectiveness. The political power of the militia has always received undue consideration, while a sound military policy still awaits recognition. The blunders of the War of 1812 were but an extension, and in some cases an amplification, of those of the Revolution. Fortunately, England was engaged in the Napoleonic wars and in the reconstruction which followed them. She gave us only just enough attention to prevent our being at any time a serious menace to her possessions on this continent.

After the war there were further reductions and reorganizations, creatures of political conditions. In 1821 came a plan of reorganization proposed by J. C. Calhoun, Secretary of War, which proposed to reduce the army to six thousand, made up of a number of skeletonized organizations which could be rapidly filled up in case of need. If we had had an adequate regular force with a reserve of trained men, the policy would have been a sound one, but not otherwise.

Various Indian wars followed on the heels of the War of 1812—the Seminole War, the Black Hawk War, the Florida War, and the Creek campaign. In these little wars—Florida, Creek, and Cherokee—we employed 12,529 regulars and 48,152 militia, or over sixty thousand troops, against an enemy who at no time could muster any considerable force. Again, waste of men and money! The lessons of the Indian wars were those of the Revolution and War of 1812; namely, that no dependence can be placed upon hastily raised militia organizations or volunteer organizations, filled with untrained men and led by untrained officers, until they have been months in the Federal service under rigid training. The use of short-term volunteers and militia is the most expensive of all methods of conducting military operations, and gives least hope of success against reasonably well-trained troops. New

levies mean new equipment, new arms and added periods of disease, new men to train and discipline, new disasters.

The Mexican War was the next important field of military activity. Here we had our troops long enough in hand to give them better training and establish a higher state of discipline than had been the rule with new troops in the Indian wars. Also we employed a much smaller percentage of militia. Our enemy was inferior in organization and in resources. We had an excellent lot of officers, many of whom later became the great leaders of the Civil War, as Grant, Lee, and Sherman. The war was conducted successfully.

Nevertheless, we must not forget that it was not a great war, or a war with a strong, well-prepared nation. The enemy's condition as to aggressive leadership is indicated by the fact that when seven of Scott's eleven volunteer regiments elected to go home, their time being out, he was left almost undisturbed with only a handful of men to await reenforcements.

After the war came the usual reduction and reorganization, and the army was reduced from 30,890 to 10,320. The great lesson had not yet been learned sufficiently to bring home the need of organized preparedness accomplished in time of peace. The reason is that we had not yet had to fight with our back against the wall against a

well-prepared enemy. Our antagonists were either inferior, or we had powerful assistance, as in our wars with England, or we had learned the art of war during war and were fortunate in having an antagonist who was doing the same thing.

Unpreparedness in the sixties cost us vast numbers of men and hundreds of millions of money. We poured out human life and national treasure in a vast stream. We subordinated military policy to politics, and paid with the lives of our men for political influence, through creating new regiments under new officers, instead of filling up the veteran regiments. Wisconsin alone is to be excepted. That State kept her veteran organizations full; and as a result one of her brigades was known as the "Iron Brigade." But as a nation we had learned little. We were indeed fortunate that our foe was as unready and as ignorant as ourselves, and much weaker in numbers and resources. For two years men struggled before the outlines of trained armies were seen and, speaking in general terms, the indications of able leadership began to characterize the work of our officers as a class. We were learning the game. We did learn it eventually, and at the end of two years had excellent armies. But two years is a period of grace no enemy who covets this fair land or our great wealth will give us.

Only once in our history have we been prepared, and that was at the end of the Civil War. Because we were prepared the French forces were withdrawn promptly from Mexico upon our request. We had right and we had force, and our request was respected.

Let us be frank with our children and our people and tell them the truth about the Civil War, not only its virtues and glories, but also its shame and sorrow. Hundreds of thousands of splendid men rushed to the colors and gave their blood and life freely. Nevertheless, thousands upon thousands were bounty jumpers and deserters, and brought dishonor upon us. There were approximately 2,763,000 enlistments; there were 504,000 desertions. A vast number of officers was dismissed for conduct unbecoming an officer and a gentleman and for unfitness. These were the vices which came directly as the result of failure to build up in the hearts and souls of our people a sense of obligation for service in war—an appreciation of the fact that manhood suffrage demands manhood obligation for service. A little less of the sidestepping and of the willingness to let better men pay the blood tax of war, and a little more of the spirit of Feeble, as Shakespeare voices it, is what is wanted:

By my troth, I care not; a man can die but once: we owe God a death: I'll ne'er bear a base mind: an't be my destiny, so; an't be not, so; no man's too good to serve's

prince; and let it go which way it will, he that dies this year is quit for the next.—KING HENRY IV, part ii, act iii, sc. 2.

We want no more wars in which new regiments are created to strengthen political control and patriotic youth turned over to be led often to needless slaughter by grossly incompetent officers. We want no more of the purchase of substitutes by the rich from those in the ranks of the poor—a practice common in the Civil War. It is the worst possible practice, and one indicating an extremely low level of patriotic sentiment or sense of obligation to serve in time of stress and danger. This practice did much to encourage desertions, promote bounty jumping and debauch military morale. That it should have been tolerated, speaks volumes for the lack of sound public sentiment.

The Indian wars which followed the Civil War covered an interesting period of army history. They were full of adventure, much hard work, and many small but gallant actions. They were not wars, in the sense of involving any considerable number of men. The affairs were rather those of outposts than battles. The army did splendid work in opening up the country, protecting the helpless settler, covering the mail routes—work which then had a value now appreciated by few. The army was systematically neglected, and military matters had only a

hazy significance to the average American. When war came with Spain, we were ten years behind the world. Obsolete artillery, black powder, shortages of all kinds, no adequate reserves of supplies, none of men or officers. There was a bureaucratic administration of the army which nothing but a hardy type of military plant could have survived. The army was as near unprepared as conspicuous bureaucratic inefficiency and studied neglect could make it, but in the line the "sacred fire" had been kept burning, though hidden from the view of most men, and the regular officer and handful of regular troops, assisted by a few volunteers — very few — did the task given them, and in doing it used up for the time the energy and resources of the regular establishment.

Again, a kind and protecting Providence saw to it that we met an enemy even less prepared in some ways than we, though in land forces they were far better armed with respect to smokeless powder, quick-fire field guns, etc. An indignant public opinion flamed up for a moment and some improvements were made, though not many. Then the Philippine campaign saw us again back on the old road of no policy. But again the enemy was of little moment, and again the victory was ours. Fate has been kind to us. As yet no strong man has barred our road.

Have we any right to trust longer our safety to soft words and empty magazines—to promises, militia, and untrained volunteers? Certainly not, if we seriously intend to defend those things which we hold dear. The warning word —Prepare!—has been thrust before our eyes again and again. Preparation and organization require time, much time. Appropriations are not trained reserves or guns, and building programs are not fighting ships. Must we wait to see our own dead and taste defeat to realize that war is still the fate of nations?

He alone deserves liberty and life, who must conquer them daily anew.—*Goethe.*

Let us no longer be nourished on what Wordsworth well calls "emasculating food," the food of coward sentiments coated with the sugar of high-sounding words. Let us remember that many a peace is more deadly than any war—a peace which marks the death of the soul of a people, a neutrality which favors neither virtue nor vice.

Preparation for an unjust or aggressive war is wicked; failure to prepare to defend our honest convictions, to fight for what we believe to be right, is moral cowardice. It means keeping the peace through breaking the faith.

III

Arbitration and Avoidance of War—Some Effects of War

Most men, and practically all soldiers, believe in the principle of arbitration. They are anxious to see its application extended and amplified. Yet we must not be blind to the fact that it is not of general application. Arbitration can be resorted to only when both parties believe that there is something to be arbitrated. When one party to the controversy is confident it is right; is absolutely resolved to maintain the right and justice of its claims, arbitration appears neither desirable nor reasonable. Again, many questions are of vital importance to one nation and of little or no importance to another. The vitally interested party does not care to arbitrate these questions. For instance, we do not care to arbitrate questions of immigration. Nations have always guarded very jealously questions affecting citizenship, and have held that they are questions to be decided by the nation itself. The Monroe Doctrine is another instance. This policy, of vital importance to us, is not generally approved by other nations. If we should submit to arbi-

tration questions arising under it, we should have difficulty in finding an impartial board. In the maintenance of the Monroe Doctrine we have had the unexpressed, but nevertheless strong, approval of England. So, too, the most vital questions leading to the present Great War have never been subjects of arbitration.

We want arbitration, as much of it as possible; but we must remember that it is not of universal application. We must remember that many disputes are being settled, and will be settled for generations to come, by appeals to force. This fact need not prevent our giving arbitration our most cordial support, but it should prevent a blind and foolish dependence upon it as an agency for settling all disputes. It should also be remembered that the strong and well-prepared nation—the nation whose power for offense and defense has to be taken into account—in the last analysis decides whether questions are to be dealt with through arbitration or settled by force. It is not the weak, unprepared nation, appealing for assistance and protection, which determines the method of settling a dispute.

There are relatively few people who appreciate the true causes of war; who realize that the great majority of wars arise through differences or controversies concerning commerce, trade routes, trade areas, and lines of commercial expansion. Race expansion and, to a lesser extent

than heretofore, religious differences are also causes of war. The great underlying causes, in most cases, run back directly to trade or to the possession of certain favorable areas for racial or industrial expansion. The old days when the arbitrary decision of kings ordinarily determined whether war was to be waged or peace maintained have practically passed away, and no leader or ruler in the present age would venture to involve his people in war unless he felt that he had their support.

Efforts to avoid war are as old as written history. Leagues to secure peace are in no sense new or recent. We find them running through the ages. Peace societies were numerous in this country early in the last century.

William Penn in 1694 composed the following:

If the SOVERAIGN PRINCES OF EUROPE, who represent that Society, or Independent State of Men that was previous to the Obligations of Society, would, for the same Reason that engaged Men first into Society, viz: LOVE OF PEACE AND ORDER, agree, to meet by their Stated Deputies in a GENERAL DYET, ESTATES, or PARLIAMENT, and there Establish Rules of Justice for Soveraign Princes to observe one to another; and thus to meet Yearly, or once in Two or Three Years at farthest, or as they shall see Cause, and to be Stiled, THE SOVERAIGN OR IMPERIAL DYET, PARLIAMENT, OR STATE OF EUROPE; before which Soveraign Assembly should be brought all Differences depending between one Soveraign and another, that cannot be made up by private Embassies, before the Sessions begin; and that

if any of the Soveraignties that Constitute these imperial States, shall refuse to submit their Claim or Pretensions to them, or to abide and perform the Judgment thereof, and seek their Remedy by Arms, or delay their Compliance beyond the Time prefixt in their Resolutions, all the other Soveraignties, United as One Strength, shall compel the Submissions and Performance of the Sentence, with Damages to the Suffering Party, and Charges to the Soveraignties that obliged their Submission. To be sure, EUROPE would quietly obtain the so much desired and needed Peace, to HER HARASSED INHABITANTS; no Soveraignty in EUROPE, having the Power, and therefore cannot show the Will to dispute the Conclusion; and, Consequently, PEACE would be procured, and continued in EUROPE . . .

I will conclude this MY PROPOSAL OF AN EUROPEAN, SOVERAIGN or IMPERIAL DYET, PARLIAMENT or ESTATES, with that which I have touch'd upon before, and which falls under the Notice of every One concerned, by coming Home to their Particular and Respective Experience within their own SOVERAIGNTIES. That by the same RULES OF JUSTICE AND PRUDENCE, by which Parents and Masters Govern their Families, and Magistrates their Cities, and Estates their Republicks, and Princes and Kings their Principalities and Kingdoms, EUROPE may Obtain and Preserve PEACE AMONG HER SOVERAIGNTIES. For Wars are the DUELS OF PRINCES; and as Government in Kingdoms and States, PREVENTS MEN BEING JUDGES AND EXECUTIONERS FOR THEMSELVES, over-rules Private Passions as to Injuries or Revenge, and subjects the Great as well as the Small to the RULE OF JUSTICE, that Power might not vanquish or oppress Right, nor one Neighbor act an INDEPENDENCY AND SOVERAIGNTY UPON ANOTHER, while they have resigned that Original Claim to the Benefit and Comfort of Society; so this being soberly weighed in the Whole, and Parts of it, it will not be hard to

conceive or frame, nor yet to execute the Design I have here proposed. . . .

The plan for an alliance of nations to enforce World Peace is not a new one. The desire for such peace has led to many earnest efforts to build up agreements and alliances which would insure it. Thus far such efforts have been without lasting success. Coincident with these efforts are declarations of men who, deeply impressed with the horrors of war, honestly believe that each great war is the last, and announce their conclusions to the world as statements of fact. Many men doubtlessly honestly believed before the beginning of the present great war that international strife on a large scale was passing away. Charlatans and tricksters and professional "peace at any price" men backed up their arguments with the statement that war was at an end, hence there was no need of preparation. There is nothing new in this propaganda. It is as old as written history. War has been always one of those rugged paths of suffering through which nations have from time to time had to pass in the discharge of their duty toward themselves and in the upholding of principles of international morality and right. I do not now refer to wars of conquest. I am speaking simply of defensive wars or wars for great principles. Charles Sumner believed and stated in 1848 that the world had seen its last great war. Some of our professional pacifists

of lighter timber and louder voices were proclaiming over the entire country up to the outbreak of the present war that the Balkan war was the last of the world's great wars. Block, the author of that remarkable book—"The Future of War"—which had much to do with the creation of the Hague Conference, gave extensive reasons why a great war could not again occur. Even our distinguished pacifists have predicted that war had passed out of the realm of possibility. All these statements are idle and wholly unwarranted, either from the standpoint of history or that of present conditions, or from that of the probabilities of the future, which must be judged very largely by the past.

War not only is with us, but probably will be with us for many a long year to come and its passing away will be accomplished only as a result of changes so stupendous in the character of men and in international relations and desires that one cannot afford to be governed in any way in making preparations for the present by the prospect of such a change at some remote future time.

Organized efforts to prevent war date back to the early days of history. The Amphictyonic League, a league of the towns of Hellas, to control war and to protect the oracle at Delphi, is among the early ones. Leagues of different nations with a view to building up an alliance so

strong that they would be secure against attack were among the earlier moves to maintain peace. Rome, through the building up of an empire of dominant military force, imposed upon the world perhaps the largest measure of peace it has ever known. This peace came from the building up of a powerful central government resulting in the suppression of nationalities through merging them into the empire. Rome fell because with the passing away of the necessity for serious effort, the sterner virtues, and the sense of obligation for service to the state, the Roman citizen no longer bore arms but depended principally upon mercenary armies. Habits of luxury grew upon the people. Comfort and accumulation of wealth were unduly prominent. The mercenary armies eventually became the masters. The old Roman spirit had gone. It was no longer an honor to bear arms. The spirit of the professional pacifist of to-day was rampant, and the peace which resulted from Rome strong and prepared was replaced by the peace of Honorius which marked a dying Rome. Rome died because she became rotten at the center. Henry the Fourth attempted to build up a league for peace through a plan which he described as the "Grand Design" by uniting the elements of the Holy Roman Empire. He was unsuccessful. Following on the heels of the Grand Design came the plan of the Abbé St. Pierre, which he described as Universal

Peace. It followed the general lines of the Grand Design and was based upon an alliance of nations to suppress war by force if necessary. It never received very serious consideration. As the Abbé Rousseau stated at the time, St. Pierre had attempted to do by means of a book what Henry the Fourth had been unable to accomplish with the might of France. The greatest effort in modern times was that which was made under the name of the Holy Alliance, an alliance under the leadership of Alexander the First of Russia. It originally included Russia, Austria, Prussia, and to a certain extent England, and later had the support of Spain and France. The purpose was to band together and maintain the peace of Europe. Unfortunately the plan of maintaining the peace included as a basic principle the suppression of attempts to establish liberal forms of government. In other words, it meant opposition to republican and liberal forms of government. The alliance was established immediately after the downfall of Napoleon and resulted in the control of republican France for a time and the placing of Louis XVIII upon the throne, and Louis, acting under the pressure of the Holy Alliance, was the main instrument in the destruction of the liberal government of Spain and the restoration of Ferdinand VII. The Alliance, however, broke down because its interests were not coincident with the policy and peculiar in-

terest of several of its great members. Russia and England had radically different views as to what should be done to Turkey, and again, England differed from the others in the case of the revolting Spanish colonies in America. Alexander, in view of his American possessions, including Alaska, was quite willing to enter into an arrangement to aid in the restoration to Spain of her lost American colonies. England was decidedly opposed to it and suggested to Rush, the American minister, that England and America should oppose this proposal. Rush was suspicious of any European influence. When the English proposal for joint action was taken up by the American cabinet, Monroe acceded to it in substance. John Quincy Adams strenuously objected and it was his opinion which prevailed, and it is his opinion which lies at the root of the Monroe Doctrine, so that out of the Holy Alliance in a way came the Monroe Doctrine. Alexander was an enthusiast and earnestly believed in the feasibility of the Alliance, but the vastness of the area covered by the great contracting powers and the wholly different viewpoints of several of its members with relation to world affairs, served to render the Alliance practically inoperative.

Again, a world-wide alliance to be lasting and effective must be between governments actuated by a more or less common ideal. It would be

difficult to conceive a lasting alliance between autocracy and democracy—between peoples living under a purely representative form of government based on democracy, and those living under autocratic or extreme monarchical type of government.

In later times we have had various alliances which are really alliances for the maintenance of peace. The Triple Alliance, the Triple Entente, the Entente Cordiale, are all marked efforts in this direction, all of which, as the present Great War sadly indicates, have been doomed to failure. I doubt very much whether this country will ever go into a world alliance and pledge herself to use her forces to maintain peace perhaps at the expense of a cause with which we may be in sympathy and more autocratic forms of governments not. Our best policy is to be ready to defend with our own arms and our own resources our territories, our rights, and our institutions. One of the dangers of the present effort in the line of an alliance to preserve peace by force of arms is that it still further delays the undertaking of absolutely necessary organization and preparedness.

The problem which confronts us is one of preparation, such preparation as will make all possible antagonists hesitate before forcing us to resort to war. An upright and just life does not protect the individual or the nation against

aggression. The best men who have ever lived on this earth have suffered martyrdom, and inoffensive nations have been swept ruthlessly aside by more powerful ones in whose way they stood. All this is very unfortunate, but it is fact. Wars will become less frequent when people are less selfish and more moral. Universal responsibility for service will help build up, as much as anything can, a habit of seriously considering and weighing the causes which may lead to war. It will not prevent war. Wars will never cease until human nature is radically changed. No nation can fold its hands and submit to oppression, be neutral in all things, both good and bad, refuse to contest any issue, and continue to exist. It will be swept aside and absorbed by other and more vigorous peoples, or linger an inert mass, subject to the will of others.

The sinews of war are not so much wealth as character and determination. Indeed, the real sinews of war are the bodies and the souls of men trained and disciplined and backed by a spirit of sacrifice. Many of the greatest philosophers have placed a very high value upon war, and history indicates conclusively that no nation has long continued to exist and exercise anything of influence, or has made any progress in the world, which has refused to resort to arms when grave issues have confronted it. Ralph Waldo Emerson and Ruskin state their

views candidly and frankly. Both were lovers of peace, but both realized that certain kinds of peace were more deadly than any kind of war. Ruskin said:

All the pure and noble arts of peace are founded on war; no great art ever rose on earth but among a nation of soldiers. There is no great art possible to a nation but that which is based on battle. When I tell you that war is the foundation of all the arts, I mean also that it is the foundation of all the high virtues and faculties of men. It was very strange for me to discover this, and very dreadful, but I saw it to be quite an undeniable fact. The common notion that peace and the virtues of civil life flourished together I found to be utterly untenable. Peace and the vices of civil life only flourish together. We talk of peace and learning, of peace and plenty, of peace and civilization; but I found that these are not the words that the Muse of History coupled together; that on her lips the words were peace and sensuality, peace and selfishness, peace and death. I found in brief that all great nations learned their truth of word and strength of thought in war; that they were nourished in war and wasted in peace; taught by war and deceived by peace; trained by war and betrayed by peace; in a word, that they were born in war and expired in peace.

Emerson expressed views which are very similar:

Our culture must, therefore, not omit the arming of the man. Let him hear in season that he is born into a state of war, and that the commonwealth and his own well-being require that she should not go dancing in the weeds of peace; but warned, self-collected and neither defying nor dreading the thunder; let him take both reputation and life in his hands, and with perfect

urbanity dare the gibbet and the mob by the absolute truth of his speech and rectitude of his behavior.

There is a general horror of war among practically all men—soldiers not excepted, for they know more of its horrors than others. Certainly most intelligent men who are not physical or moral cowards realize that, dreadful as war is, it is incomparably better than a line of policy which refuses to organize the forces of right against the strength of evil. We all want peace with honor. The best possible insurance of it is such organization and preparation as will give our words weight in the world and will make those who contemplate the use of force hesitate to attack us.

We must not overlook the fact that many great and valuable discoveries, especially in medical and sanitary lines, have come through concentration of troops for military purposes. The necessity of keeping the fighting machine in the best possible health has stimulated the energies of thousands of men. The dramatic conditions surrounding military operations and the massing of great bodies of men have all served to concentrate the best abilities of men upon devising measures to reduce sickness and prevent consequent disability. The presence of yellow fever among our troops in Cuba was the great stimulus behind the Reed board for the study of that dread disease. The presence of typhoid along

the border a few years ago, threatening the troops, led to the compulsory use of the anti-typhoid serum. Conditions in trench warfare have recently led to methods of combating various intestinal troubles and almost perfect control of tetanus and improvements in sanitary methods to an enormous extent. In other words, out of the effort to keep men in the best possible condition for the destructive effort of war have come great life-saving discoveries which will be of benefit to men for all time. The necessity for efficiency in the highest degree has eliminated very largely alcohol from armies, and to a great extent from the peoples from which they are drawn. No man can estimate the far-reaching benefits to humanity which will result from this. They will be boundless and for all time. Profound researches have been made with reference to the value of foods—researches which will greatly aid economic efficiency. In other words, the most fit survive the struggle. The knowledge of how this condition was attained endures forever and serves all men in times of peace as well as war.

There is much discussion of the horrors of war; there is too little interest in the victims of some of the horrors of peace. War is a very dramatic occurrence. The great majority of people are stirred by the explosive and sensational effect. They are hysterical over the victims of the armed conflict, although it may be to uphold

the right or to protect the weak and helpless or to stem the tide of barbarous invasion. The same people take little or no interest in the frightful losses of the industrial struggle. They doze over the ghastly list of the dead from carelessness, criminal negligence, and want of ordinary safety appliances. As a nation, at least as indicated by deeds, we are indifferent to our frightful industrial casualty roll.

These industrial casualties amount to over five hundred thousand each year, with over eighty thousand fatalities and tens of thousands of cripples. There is no keen, overwhelming influence for bettering the conditions which make these losses possible. Our annual industrial casualty list equals the average annual death rate of the English and French forces in the Crimea plus the American casualties in the Mexican War, the casualties of the North in any year of the Civil War, our casualties in the Spanish War, the English casualties in the Boer War, and the Japanese casualties in any year of the Russian War. In other words, our industrial loss of life and limb each year is equivalent to the losses which we should have incurred had we conducted all of these wars simultaneously.

This does not mean that war is any less dreadful, but it does mean that there is a very shallow appreciation of what is going on in the community, and that our talk about war is based

less on a desire to save life than on hysteria. Now, these industrial deaths are, many of them, in the mad rush for wealth. They result from the grossest neglect of safety appliances and of public interest in the welfare of the worker. They are largely avoidable. They could be vastly reduced if there were less keenness for profits and more for the well-being of those engaged in the many occupations which characterize an industrial nation.

IV

Time Necessary to Train Men

The question as to how much time is needed to make an effective soldier has been much discussed, not only in our time but in previous generations. The time required to train depends greatly upon certain conditions: First, the education, intelligence, and interest of the men being trained; second, the capacity and experience of the officers who are training them; third, the surroundings under which they are trained—completeness of equipment, suitability of climate, and freedom from diverting occupation of a non-military character.

Training has in view three principal objects: First, it endeavors to put the soldier in a first-class physical condition, to so develop him that he can perform the duties of his arm with a minimum of fatigue. Second, it proceeds to train him so thoroughly in the use of the weapons of his arm and in the discharge of his duties that he may have the maximum of efficiency under all conditions. Third, it seeks to build up in him the spirit of unquestioning obedience. In other words, to establish a rigid discipline.

Time Necessary to Train Men

There are two kinds of discipline: there is the discipline which comes from education and intelligence—the discipline which characterizes the intelligent, well-educated man who surrenders his volition to his military superior, because he is sufficiently intelligent to appreciate that success depends upon subordination to those appointed to command, upon thorough cooperation and coordination and upon doing everything possible to win. Then there is another kind of discipline, which may be described as the discipline of habit—the automatic compliance with instructions—the kind of discipline which has to be employed in training the less intelligent man, the man who does not know from education and observation that instant obedience and thorough subordination are necessary for military success. This is the discipline of habit. This discipline, which comes from doing over and over again the same thing, has its value. It is not based upon a full understanding of the needs of the situation and is liable to be upset by any impulse stronger than that of habit, and once upset is difficult of restoration. The man with this kind of discipline too often has not the intelligence to collect himself which characterizes the more intelligent and better educated man. First-class passengers in a disaster at sea are generally orderly, collected, and quietly obedient to instructions. The mass in the steerage are more difficult to handle. In

one instance you have the educated group, sufficiently intelligent to appreciate that the only hope of escape rests in doing in an orderly manner in the limited time available what they are told to do. In the other, you have blind, unreasoning frenzy, often controlled only by the most severe measures. These people lack the developed reasoning power necessary to appreciate that such chance as there is will be destroyed unless those in authority are implicitly obeyed. So it is oftentimes with the well-disciplined but very ignorant man. Swept off his feet by unexpected circumstances, he lacks the intelligence and balance necessary to reestablish order and reorganize. The illiterate, uneducated class, especially if not engaged in an industry requiring muscular coordination and quick response to the impulses of the will, require a long time to train. Men of this class are especially benefited by training. They come out of it with minds and muscles working in better cooperation, with bodies better developed; better balanced, and more fully under control.

The time required depends also upon the training which the recruit has had as a youth. If he has been trained as in Switzerland—where exercises tending to give him a better physique and quick, responsive muscles are commenced at the seventh year and carried through systematically up to the time that he is old enough for military

service, exercises combined with marching and certain forms of drill which are military in character; and if in addition, he has been given rifle shooting, map reading and many other things which are a part of the soldier's work—the time necessary to round out his training and make him a fairly effective soldier is very short. Then again, if the officers are men whose lives have been devoted to the training of new men, to turning out the finished product in the minimum of time, the period can be considerably shortened. Surrounding conditions also have their influence in various ways. If climatic conditions are suitable, equipment complete and no nonmilitary duties interfere, progress is very rapid. Again if war threatens or a great national crisis is imminent, men under training take a keener interest. Men living under that form of government which is productive of individual initiative absorb military training more rapidly than men who do not live under these conditions. The intelligent man is more critical and demands a more intelligent and efficient instructor. On the other hand, he absorbs and puts to its right use the information and training which is given him several times more rapidly than the illiterate, untrained and uncoordinated individual.

If we had in this country the system enforced in Switzerland or Australia, for the training of our youth up to eighteen, and could hold our

training camps in favorable situations with ample equipment and with a well-trained body of officers, we could turn out reasonably effective soldiers in about three months' time. This statement assumes that they have been given, and given thoroughly, the preliminary training which the young Swiss or the Australian junior and senior cadet gets. I am not now speaking of officers or noncommissioned officers, but the private soldier. The training must be intensive, covering not less than eight hours per day (which is about three times as much actual training as a man gets per day in the regular service). Noncommissioned officers will require very considerably longer periods, and officers still longer.

With our system, under which the recruits who come to the colors in time of war are made up of men of all classes, all of them under untrained and inexperienced officers, it is safe to say that from six months to ten months of the most intensive training would be needed to make them reasonably effective soldiers, because almost all conditions favorable to training would be wanting. When all conditions are favorable, effective training of men who have had no previous training can be accomplished in six months.

Favorable conditions for training large numbers do not at present exist in this country. We have no great training camps equipped for work of this kind, nor have we the large body of highly

trained officers and noncommissioned officers necessary for this special work. We must build from the ground up. Little by little we are building up a small group of officers from the experience gained at Plattsburg. Its number is still very small in comparison with the number which would be needed to train a large force of men in case of war.

In case we come to universal training the first few years will be difficult. One thing is certain, and it is that unless we change the system which we have followed in our past wars, we shall not only risk the independence of our country, but throw away the lives of thousands upon thousands of our men when they are called upon untrained and unprepared, to meet well-organized well-prepared, and well-led troops.

Training in the various European countries varies. In the larger military countries, such as Austria, France, Germany, Italy, and Russia, the enlistment period of the soldier covers from two to three years. In some countries, Russia for example, certain arms—cavalry and engineers—are given four years of active service. The smaller countries, such as Bulgaria and Rumania, have practically the same period of service as the larger—two or three years. England, like ourselves, has depended until recently upon a mercenary army of professional soldiers — only a handful in comparison to the demands of a great

war, and upon volunteers. New troops coming to the colors require months of intensive training before they are considered fit to go to the front. Again, under a volunteer system there is great lack of trained officers and noncommissioned officers as instructors. Everything must be done after war begins.

When one speaks of a period of training covering from two to three years, it must be remembered that from one-third to one-half of the European army is sent to the reserves each year, and that the remaining two-thirds or one-half is the veteran nucleus which will be called upon in case of any sudden emergency, and around which the recruits are assembled for training. For example, in France and in Germany, the essential training of the men is so far completed at the end of five months that they are considered fit for service. In the emergency of sudden war they are sent if they have had five months' training, or even earlier. The second year they are a trained nucleus around which the new recruits are assembled for training, so that one must not get the idea that the full two, three or four years are required for the training of the individual man. It is the period which is necessary to hold him, part of the time for his own training and part as the trained nucleus around which others are assembled for training.

In England some years ago an experiment was

made with what was known as the Spectator Experimental Company. A company of an average class of men was recruited and given intensive instruction for a period of six months in all the duties which an infantry soldier would be expected to perform. At the end of that time they were submitted to a rigid inspection and obtained a very high standard of classification. When Napoleon limited the military force in Prussia, the system of approximately six months of intensive training was adopted in order to pass through the training as many men as possible.

In our army in a small way a company, a battery, and troop organizations of the different arms have been given intensive training. The organizations were filled up with men who had had no previous military instruction of any kind. They were given a course of systematic progressive training for one year following a well-thought-out schedule, the training was not intensive. At the end of the year they were among the most efficient organizations of their regiments. In fact, I believe that an unbiased judgment would have given them the palm. Plattsburg furnishes another example. I have seen several hundred officers approach Plattsburg filled with skepticism. I know of no officer who has left it whose views as to the possibility of what can be accomplished under a system of intensive

training have not radically changed. In fact, so tremendous has been the impression that, if there has been any error in judgment, it has been in the swing of the pendulum too far to the side of the brief period of training.

Six months of intensive training in camp under competent officers and under favorable surroundings with the minimum of nonmilitary duty will be fully equivalent in results attained to eighteen months' training in the regular service under normal conditions.

Each year we furlough men in the regular service to the regular reserve after a year's training on the statement of their officers that they are well-trained and efficient soldiers. This should be remembered by those who insist that a year's intensive training is necessary for the citizen soldier. The latter's training will be given under conditions where the maximum energy is devoted to purely military work, where a class all enter at the same time and proceed in accordance with a fixed program of work. It is this system and freedom from nonmilitary work which makes the intensive training at least three times as effective when measured by results as that ordinarily given in the regular service. There need be no apprehension that we cannot turn out far better trained men in six months of intensive training than we do by a year's training under normal conditions in the regular establishment.

Indeed, they will have had of actual, pure, military training, more hours than the average man gets under arms in the regular army in eighteen months, and they will have received it under a system under which all the men in training advance progressively from day to day, whereas in the regular establishment new men are constantly entering and progressive systematic work is seriously interfered with. The men who are willing to certify a soldier as suitable for transfer to the reserve after a year under our exceedingly irregular and unsatisfactory system of training in the regular establishment are doubtful as to the possibility of turning out a well-trained man in six months, although under the system proposed he will have had three times as much instruction and under conditions of systematic, well-thought-out, progressive work. It is hard to break loose from old ideas, but a more rational system must be established in this country if we are to have any adequate degree of military preparedness.

If intensive training is to be effectively carried out in our army, and it is not now to anything like the extent to which it could and should be, we must drop the present type of garrison establishment, devote ourselves less to gardening and agriculture and incidental occupations and give more time to strictly military duties, so that the men who enter the service may pass into the reserve as soon as they are well-trained, efficient

soldiers; for it is the well-trained, efficient soldier that we need. A well-trained man goes to the reserve and an untrained man steps into his place, and so on until an adequate reserve is built up. This system is better for the officer and incomparably better for the nation. The military efficiency of the officer who has conducted this intensive training and become familiar with what can be done has been greatly increased, and his value to the country in case of trouble has been doubled. The old system of long service, an hour or two of instruction a day, and the encouragement of old men to come back to the colors, was destructive to the efficiency of the officers concerned and of no value in building up a sound military system.

V

Duties of Parents

PARENTS should teach children to love truth and fair play, and should instill into their hearts a sense of profound and ever-present obligation for national service. They should teach them respect for our institutions, the flag, the uniform of our soldiers and sailors. They should strive to create in them a spirit of national solidarity. They should see that the boys are trained and fit to discharge effectively their military obligations. All these they can do with both moral and physical benefit to the child, and in so doing will add to the moral, spiritual, and material progress of our country. Teach them to "fear God and take their own part."

Parents do not like to think of their sons becoming involved in actual armed conflict; but the possibility must be frankly admitted. The mother knows that, if the boy has inherited manly qualities, he will respond to the call of his country in time of national peril. The question for her to decide is whether or not, dreading war, she is going to ignore the possibility of it and permit the boy to grow up without

proper training or instruction—lacking that information and training which are necessary to make him an efficient soldier, and which, in all probability, will give him a better chance to come through the armed conflict alive. The boy, if he is fit to be a citizen, is going to serve. It is the part of the parent to see that he is given the best possible preparation. The unfortunate creature who wrote the song "I didn't raise my boy to be a soldier" has voiced a sentiment which, were it in any way general, would mean national collapse in case of trouble. None of us raise our boys specially to be soldiers, but we do raise them in the hope that they will meet the call of the nation for service, whether it be in war or in peace, and not expect to be protected by the boy who has been raised to discharge his full duty. We shall either do our own fighting and defend ourselves, or, as the subjects of another nation, receive our military training under their orders.

The best way to avoid war is to be thoroughly prepared for it. The strong man armed can be both just and tolerant, as can a strong nation armed and prepared; and in both instances the would-be aggressor is much less prone to attack. He will count the cost and realize the danger. The strongest influence in this country for war has been that of those who have prevented national preparedness, and, incidentally, they are

the type last to respond in a moment of national peril. Preparation and training are necessary for success in business, in the professions, and in sport. War, which is one of the most complex and intricate of procedures, requires of those who are to conduct it or take part in it successfully most thorough training — training which must be accomplished in time of peace if there is to be any hope of success against a trained and organized enemy. The charlatans who foolishly boast of raising a million men between sun and sun are a danger to the community and their influence is wholly bad. They encourage conditions which make war probable and successful resistance almost impossible. Nothing can be left to chance these days. We do not want war if we can avoid it morally and honorably. But we must have thorough training and preparation to meet war thrust upon us.

The effects of this training of youth are always beneficial: physically, from the better development of the body, correction of physical defects and general all-round improvement; economically, from the habits of promptness and thoroughness; and morally because of the discipline which teaches them to respect the laws and the rights of others. From the standpoint of citizenship, it builds up a spirit of national solidarity, which tends to national strength. Employers of labor, who in a way stand *in loco parentis,*

should set a good example to those under them by doing their full duty, and if too old to take part in the training or to render general service, should extend every opportunity to those in their employment to take whatever training is prescribed. They should give employees every opportunity to attend such training camps as are open to them—the Plattsburg camps, the guard (as long as we have it), training corps, rifle clubs, etc.

VI

Boy Scouts

The Boy Scout movement is in the right direction and is one which should be extended to the fullest possible limit. If every boy in America were a member of this organization, much would be accomplished for national solidarity, the obliteration of class and race lines, and the building up of a better and truer spirit of patriotism. Generally speaking, the scout training teaches patriotism, honesty, and fair dealing. It does much to familiarize boys with life in the open and to teach them to take care of themselves in camp and field. Scout training embodies much that is valuable in training boys for the discharge of their military obligations when they have reached the age for final military training. For the older boys—boys over fourteen years of age—the course should include rifle shooting, simpler military formations, more thorough instruction and map reading, and scout masters should be so instructed as to be able to give the boys under their control a true and unbiased statement of our military history and explain the defects of our military policy, its dangers and

cost. If we could put every boy in the United States into the Boy Scouts and have the training amplified on these lines, this organization of itself would vastly increase the military, moral, and economic efficiency of this country.

The movement should be given the strongest possible support. The emasculating doctrines, false teaching of professional pacifism, should be kept away from it. The boys should be told frankly the horrors of war and also have impressed upon them the fact that a peace which marks the failure to discharge national duty is more costly and more dreadful than any war as it destroys national character and eventually national life.

The movement as it stands is a splendid movement. It tends to make boys better physically and morally, and is building for national solidarity. If we can extend it to the limits above indicated, it will play a very important part in our national life. The older boys, as soon as they have reached the proper age, should be sent to the Junior and Senior Plattsburg camps in order that their military training may be extended. Men of suitable age and character from the Plattsburg camps and carefully selected officers and men of the guard should be selected for scout masters when it is possible to secure their services. Plattsburg and loyal service in the guard teach patriotism and good citizenship,

while imparting the elements of military training, and these men will bring with them to the position of scout masters the best possible influence for building up that spirit of national solidarity which we so much need.

VII

Volunteers and Militia

Volunteers

In the condemnation of the systems of volunteers and militia there should be no unfair or general condemnation of the personnel with regard to its inherent qualities of physical, mental, and moral fiber. Condemnation of the systems is nevertheless warranted, because neither gives us promptly, in an emergency, a thoroughly instructed and dependable force. The volunteer spirit is superb and worthy of the highest praise, but modern organization and preparedness are such that no nation can trust to meeting them with a volunteer system or a system of militia.

If our volunteers were organized, equipped, and thoroughly trained, if they were well prepared, and if the volunteer spirit were general among all classes to such an extent that the burden of service would be borne by all alike during certain prescribed periods of life, it would be a more workable and dependable system. Unfortunately, the actual situation is just the reverse. There is no organized, well-thought-out

system of general training and preparation. The volunteer officer and man appear coincidentally with the arrival of war, each untrained and unprepared, ignorant of arms and their use, strangers to discipline—food for powder and nothing else if opposed by thoroughly trained, well-equipped and ably led troops. The system results in a murderous waste of the best of our men, victims of neglect and failure to take the most elementary advantages of the lessons not only of to-day, but of all time since history was written.

Again, the system is unfair and undemocratic. The burden of service is not fairly distributed. The shirk and the coward escape. The best and the bravest bear the burden; they pay with their lives the tax which all who are physically and mentally fit should bear alike, shoulder to shoulder, with no distinction of creed, wealth, or social position.

The policy of depending on volunteers must be abandoned if we are to endure as a nation.

Militia

In the militia also we have a dangerously defective system—an undependable instrument of defense. There is in the militia something of organization, something of training, and a partial equipment; but the system makes real efficiency impossible. Neither officers nor men

are well trained, nor can they be under the militia system. There is dual control. The Federal government is without any sufficient power or control until the militia is called into Federal service, which is not until danger confronts us, and then it often has to undergo a virtual reorganization.

Here again is an unfair system, an unequal distribution of the burden. The militia officer and man is a partly trained volunteer. Divided control, and the feeling that they are not actually national troops, has always served to dull interest in the militia. The efficiency of the organizations in the different States is largely dependent upon State interest. Officers are appointed by the governor. The organization is essentially a State organization. Nothing has been done to date which effectively changes this status. The weapons of the Federal government must be Federal weapons owned and controlled by it. The lessons of our recent mobilization should never require repetition. Even the superficial observer, unless he is absolutely blind, must appreciate what would have happened had the emergency been a serious one. From the military standpoint, the lesson is one which points as strongly as human experience can to the necessity of a radical change. The vast majority of militia officers and men are actuated by lofty motives; they are not as individuals responsible

or at fault for the general lack of efficiency. But the system is. Most of them now believe in universal military service. They have learned that this is the only system upon which the country can depend to provide an adequate defense in time of serious stress and trouble—in time of real war with a first-class power. Such a war we have never yet had. Our present lack of system can no more stand the strain of such a war than an eggshell can withstand a sledge hammer. The vital question is: must we go through the crushing experience, or shall we gather something from the experience of others?

We need a highly trained regular army adequate for the garrisons of our oversea possessions. In addition it must be large enough to furnish garrisons for the home country, an expeditionary force, and to furnish training nuclei for our citizen soldiers. We require also a first-class navy—a strong one, always ready.

A regular army will always be insufficient to meet the demands of modern war. In addition, we must have a system of universal military training and service under conditions which will require all physically and mentally fit men of a certain age to pass a prescribed period in the organized portion of this force. This force will be the real source of our national armies in war. Modern conditions of organization demand a huge reserve corps of officers and reserves of

arms and munitions sufficient to meet for at least one year the demands of modern war, and arrangements which will enable our industrial energy and equipment to be turned promptly to the production of arms and munitions of war. In other words, an organization of our industries.

VIII

Universal Military Service

Universal military service is the only solution of our national military problem. The militia system has been unsatisfactory in all our wars. The volunteer system has failed us in time of need. Good men come in the first rush, but enthusiasm soon passes away. Then come the draft, bounty, purchase of substitutes, and all those makeshift, debased and debauching influences which paralyze the energy of a nation and render it helpless in a real struggle. We must adopt a system on the general lines of the Australian and Swiss, with a minimum of at least six months' intensive training for the private soldier, more for the noncommissioned officer, and much more for the officer. A system of credits should be arranged for training in first-class military schools and colleges maintaining military instruction. There should be a fixed irreducible minimum course of final standardization of three months in a United States training camp in conjunction with regular troops.

We have a little over a million men coming of age each year. Only half of them are physically

fit for military service. A large proportion of the other half are fitted for service in munition factories, on the line of communications, supply departments, etc. The half million who even are physically fit should complete their period of intensive training during their nineteenth birthday, and pass into the Federal militia for a period of one year on July 1st of the year in which they become twenty-one years of age. By this is meant organized and equipped units maintained under absolute Federal control, but upon the same status as to liberty of movement, freedom to engage in their usual occupations, as are the members of the militia to-day. These organizations should have a minimum of fifteen days' intensive field training upon entering this year of service, thirty days if possible. These organizations will be the force called in case of need of troops in excess of the regular army for service during their year. The period of six months of intensive training required for those who have had no previous training could well be divided into two periods of three months each for young men in college or high schools; also in the case of those who have dependent relatives requiring their services. The great objection to the two periods of three months each is the additional expense for transportation to and from their homes. Every effort should be made to build up a permanent and highly trained corps of officers for this force, as

much will depend upon their efficiency. With this end in view, officers should be encouraged to hold their commissions for long periods and every opportunity given them to fit themselves for the responsibilities of their position and prepare themselves for possibly higher commands in time of war.

These organizations would be the force called upon to meet such emergencies as could not be handled successfully by the regular force. In case of any unusual complications men of another class (year) could be called to the colors. The period of military obligation for the first-line service should be from the twenty-first to the twenty-ninth birthday inclusive—eight years—or something over four million of men. Young men in college might be allowed any one of three years in which to serve their year of enrollment in the Federal guard. All of this could be done under conditions which, in case they were called to the colors for such an emergency as that existing at present, would not interfere with their educational career. It is not necessary to go into details here. All that is required is a very brief outline of the general policy. Under a system of this kind every man would know that if an emergency arose within his period of obligation he would have to go. There would be no uncertainty as to who was to go, no shifting and changing about at the last moment. Beyond the

twenty-ninth year and below the twenty-first would be the men from 29 to 45 and 18 to 21. They would be subject to call in case of any great national emergency.

Some system of this kind is what is needed from every standpoint—the standpoint of defense, national solidarity, physical upbuilding of our people and the betterment of public and private morals. The system is perfectly feasible of application, and once in force will be the strongest possible preventive of war.

Universal military training and service is absolutely essential to the safety and well-being of this nation. It is not that kind or degree of service which will build up a condition of militarism, a condition under which the military class, including both land and sea forces, demand and receive special precedence and consideration, both officially and socially, a condition under which the military group exercises an undue influence on the nation's policy and upon its international relations. Such a situation would be intolerable in this or any other true democracy. What we do need is that system of preparedness which is found in Switzerland and Australia, or one built up on these lines. Under this system each and every youth who is physically fit will receive partly during his school period, and partly immediately upon the conclusion thereof, sufficient training to make him a reasonably

effective soldier—reasonably efficient in the defense of his country. We want the largest number of men trained to be soldiers if they should be needed. We want as small a number as possible leading the lives of professional soldiers. In other words, we want our people trained so that they may be promptly efficient and effective. We do not wish to maintain under arms any more than are absolutely needed. We shall always need a strong navy, absolutely ready at all times, and a well-prepared, reasonably strong regular army for our oversea possessions and for home purposes, of a size adequate to meet the demands of national policy. In addition to these, we want a great body of civilian soldiers and officers trained and sufficiently organized to be immediately available—a people trained to arms but not living under arms. Also we must have adequate reserves of arms and reserve supplies.

There is nothing new in universal military service. It is as old as organized humanity. In the Old Testament (Numbers, chapter i, verse 3), we find these words with reference to the listing of the Hebrews for military service: "Every male from twenty years old and upward, all that are able to go forth for war."

We want no privileged class, no class that claims to have the right to volunteer to let better men do their military service for them. This class is the real opponent of universal military

training. Its members do not intend to serve in case of war, and in order to cover a faint heart, they advanced the argument for the volunteer as a system which is unfair, undemocratic, and decidedly untrustworthy. It has invariably failed us in time of need. We have had to go to the draft and the bounty; and with these practices has been associated even a worse one, the practice of permitting men to purchase substitutes. All these evasions must be done away with, and there must be a condition of really universal service—service shoulder to shoulder, all of a certain age together, at some fixed period of our lives. This service all together, living under the same conditions, following out the same system of work, all animated by a common purpose, and that purpose a patriotic one, will serve to make America a real melting pot, which she must be if we are to have a homogeneous population. Real democracy rests upon one fundamental principle, and that is, that equality of opportunity and privilege goes hand in hand with equality of obligation, in war as well as in peace; that suffrage demands obligation for service, not necessarily in the ranks, but wherever it can be best rendered. The army of to-day is the army of the people. The professional army of the eighteenth century began to disappear on the 14th of July, 1785. It dropped gradually out of sight and disappeared on the 14th of October, 1806, at the

battle of Jena, and the national army took its place. The wonderful fighting machine which Frederick left was replaced by the people in arms. In 1798 the French Government enacted the first real conscription law. The example set was gradually followed throughout the Continent. In 1807 the Prussian army, under the conditions of the Treaty of Tilsit, was limited to 42,000 men. Scharnhorst and others of that time, realizing that the struggle for national life was not yet concluded, looking ahead to other efforts, adopted a system of sending men through a period of intensive training, as rapidly as possible, retaining permanent officers and noncommissioned officers, and holding as many men as possible in reserve. These were the men who, under Blücher, gave such a good account of themselves at Waterloo. Soon the system was in general force. To-day we find it in full operation in practically all the great nations of the world, and in most of the smaller ones.

Switzerland is as democratic a country as there is on earth. It shows no trace of militarism. Yet all her physically fit men are so trained that they are reasonably effective soldiers. What is the effect of this training? One has only to look at the statistics to appreciate that it is good. Our murder rate is several times greater per million than that of the Swiss. Public regard for law and order, public morality, and national solidarity

have all been greatly improved. There has been built up in the soul of each person an appreciation of the fact that they are an integral portion of a nation, and that he or she has responsibilities as well as privileges.

The careful system of physical training enforced in Switzerland turns out better men and better women. The careful discipline of the early military period of training makes those who come under it more observant of the rights of others, of the law and the constituted authorities. The result is seen in the low criminal rate, the habits of regularity, promptness, thoroughness, and of doing things when told and as told. The training makes those who come under its influence more efficient and more dependable from every standpoint. The general result is highly beneficial. Aside from their increased military value, the straight economic value of those who have had this training has been increased anywhere from 15 to 30 per cent.

The principle of universal training and service is just and equitable. It recognizes that service in war for the protection of the nation's rights and those of its citizens is one of the most binding obligations of citizenship—that this service rests upon all who are physically and mentally fit, rich and poor, Jew and Gentile, Protestant and Catholic. It knows no class and favors no man. The rich cannot buy the bodies of the

poor, cannot buy substitutes; all must go shoulder to shoulder and pay alike the service in war obligation.

It is absolutely democratic; hence, it can never produce a condition of militarism, being in fact the enemy of militarism. Where true universal service exists under a true democracy, under conditions where the people is the army and the army represents all the people, militarism is impossible. Universal service is sound, it is just, it is effective. It renders unnecessary the large standing army and reduces the permanent regular force to that which is necessary to meet the peace needs of the nation; moreover, it is effective and alone can furnish the armies necessary under conditions of modern war, or produce economically the military strength which will warn predatory nations that our rights must be respected.

The volunteer system, being unsound and unjust, never can meet the demands of modern war with a first-class power—unsound because it is founded upon uncertainty, put into operation under conditions of chaos; unjust because it bears unequally upon the population, throwing the burden of war upon the few, upon the best. It does not fairly distribute the burden upon the individual or the period. The burdens of war should be distributed so that that portion which represents preparation in all its forms—instruc-

tion, supplies, equipment—should be done in time of peace. The system is dangerous because it does not give a promptly available instructed force. It is vicious because it kills the general widespread sense of individual responsibility for service.

The pacifists, prejudiced and blind, have extolled this unfair, unsafe, and thoroughly undemocratic system. They have attempted to discredit the truly democratic one, the one which asserts that the defense of one's country is a duty binding upon all and not a favor to be rendered if one feels so disposed. Cowards and shirks naturally prefer a system which makes it possible to volunteer to let some better man do their duty for them. They prefer to let the brave and patriotic bear the burden and pay the blood and perhaps the life-tax of war. This is absolutely contrary to the fundamental principle on which democracy rests, the principle of equality of opportunity and equality of obligation and service within the limits of one's ability.

Those who are fighting universal training, unconsciously or consciously, are working for militarism, national unpreparedness, and national inefficiency. They are a force for war because they are working for a condition which makes preparedness impossible, a condition which encourages attack. The danger which confronts us is not that we may be swept into militarism, but

that through listening to everything except the call of duty we may be found unprepared to meet the attack of a militaristic aggressor. Our great wealth, our spreading commerce, our great extent of territory, our great racial groups, too often unassimilated, present sources of grave danger unless we exercise wise measures of precaution. Universal service will weld the diverse racial groups into one mass filled with the spirit of national solidarity as nothing else can or will, and out of it will come a people single in purpose, just but strong, prepared but not aggressive. With this condition will come safety and peace.

The following extracts from the sermon of the Rev. William T. Manning of Trinity Parish are to the point, and ring with sound patriotism, sound policy, and true Christianity:

We need a great reawakening of the spirit of true Americanism, and a great reconsecration to our national ideal. There are influences at work to-day which are operating definitely to weaken the spirit of patriotism. The word "pacifism" has come much into vogue in recent time. If by pacifism is meant only a desire in every way possible to remove the causes and lessen the likelihood of war, then we are all of us in sympathy with it. In this sense our most earnest pacifists are the officers of the United States army and navy, who know what war means, and who would be the first to give their lives if war came.

But if by pacifism is meant the teaching that the use of force is never justifiable, then, however well meant, it is mistaken, and it is hurtful to the life of our country. And the pacifism which takes the position

that because war is evil, therefore all who engage in war, whether for offense or defense, are equally blameworthy and to be condemned, is not only unreasonable, it is inexcusably unjust.

The effort to identify the Christian religion with ultrapacifism is a misapprehension of the truth and an injury to religion. The Christian religion no more enjoins us to leave our shores unprotected against some brutal but efficient invader, than it enjoins us to leave our homes unprotected against murderers and thieves. If the Christian religion meant that we are not to protect those dependent upon us, and to make every effort to do this effectively, then I say that normal men everywhere would reject the Christian religion, and they would be justified in doing so.

But the Christian religion holds up no such mistaken ideal. The Christian religion is true to all the facts of life. Our Lord Jesus Christ does not stand for peace at any price, but for righteousness and truth, first, and at all cost.

No one in this country wants war. As never before we see its cruelty and its horror. By every means that may be we want to see its likelihood lessened and its causes eliminated. But evil as war is there are still deeper evils. Bodily comfort, physical safety, material prosperity, are not the greatest things in life. War may hurt and kill the body. There are things that hurt and kill the soul. Every true American would rather see this land face war than see her flag lowered in dishonor, or her name touched with disgrace. Every true American would rather see this land involved in war than see her false to those principles of right, of freedom and humanity, upon which our life is built, and upon which the hope of the world depends.

We need in every part of our land, and among all classes of our people, a great reawakening of our sense of the responsibility which rests on us as citizens, of the duty that we owe to our country, and of the service that we owe to the State. In every true citizen of a republic there must be something of the soldier

spirit, the spirit of self-sacrifice, of devotion to duty, of willingness to give time and strength and, if occasion require, life itself, in the service of his land. This spirit is of our very soul as a nation, but it seems to be less strong among us than it once was. It does not seem to burn in the hearts of our people as it once did. There are many of us whose thought seems to be far more of what our country owes to us, than of what we owe to our country.

And on this notable anniversary, in the presence of the representatives of our government, speaking with all possible care and deliberation, I wish to say that, not only from the standpoint of a citizen, but from the standpoint of a minister of religion, whose duty it is to advocate only that which is for the highest moral and spiritual good of our people, I believe there is nothing that would be of such great practical benefit to us as universal military training for the men of our land. The assertion that this would lead us into militarism need not be seriously considered. This assertion is made by those who are opposed not only to militarism, but to any adequate measures for military preparedness. The danger of a democracy is not that it may be carried into militarism, but that it may be found unprepared to defend itself against militaristic aggression.

I advocate universal training because of its military effectiveness. It will make our land practically secure against invasion.

I advocate it because it is the only military system that is truly democratic. It puts all on one common footing. Its effect is a people trained and prepared for their own defense.

I advocate it because it will weld our nation together and help to make of our many races one united people.

I advocate it because of its moral and spiritual value. It will give us needed discipline. It will develop in us those high qualities of orderliness and system, of respect for authority, of obedience of law,

which are not the strongest points in our national character. It will tend to make our young men better Americans, better citizens, and better Christians. . . .

It was George Washington who said: "Reason and experience both forbid us to expect that national morality can prevail in exclusion of religious principle. . . . To the distinguished character of Patriot it should be our highest glory to add the more distinguished character of Christian. . ."

Charles W. Eliot, president emeritus of Harvard University, in discussing universal military service in the "World's Work," November, 1916, says among other things:

Steam and electricity have done away with the physical isolation of the United States. The oceans are not barriers but highways which invite the passage of fleets, pacific or hostile. The security of America can no longer be trusted to the width of the Atlantic and the Pacific.

He also invites attention to the needed changes in school methods:

From the adoption of the principle of universal service certain changes in school training would be likely to follow. No distinctly military training would be necessary or desirable during the school age—six to eighteen years; but the total school training should supply the primary essentials for either industrial or military service, and should invariably include the "setting-up" drill which is now associated only with military training. Rifle and pistol shooting, hunting, fishing, using carpenter's tools, climbing, and walking long distances should be encouraged for boys during school life at the appropriate ages; cooking, nursing, sewing, knitting, climbing, and walking for girls; and dancing

and swimming for both sexes. The soldier needs much more training of his senses than is given in American schools to-day; but so does the industrial worker, and the home worker. No peculiar mental training need be given in schools to prepare youth of either sex especially for works of war. All the sense and mind training which a skillful soldier needs is just as much needed for works of peace.

Most of the details in the Swiss system of national defense could be copied with appropriate modifications in an American system of national defense.

He also points out that under a system of universal military service safety can be secured without danger of militarism; and finally, speaking of America's military needs, says:

The United States needs a navy modeled on the British navy, and an army modeled on the Swiss army; and in order to procure both it needs to adopt the principle of brief universal service in the army or the navy. The time lost by the young men from the productive industries and the service of the family will be a trifling loss compared with the gain from an increased feeling of devotion to the country in the hearts of multitudes, and a quickened sense of responsibility for its welfare. The slight loss of individual liberty will be more than compensated by experience of a strict, cooperative discipline, and by an enlarged sense of comradeship and community interest among the people.

Therefore, the United States needs a navy of the best possible sort as regards men, vessels, and equipment, and an army of the most patriotic quality and surest efficiency. To secure this navy and this army it needs to adopt the principle of universal service. To do nothing and run for luck is not good sense, when such vital interests are at stake. Those who think it high time for men to learn war no more, and that all teaching

of the military art is to be deplored, can console themselves with the reflections that, whereas many millions of young Americans, on the principle of universal service, would learn how to fight, only a small proportion of the total mass would ever be called on actually to fight, and that the better the teaching the smaller that proportion would probably be. Moreover, the small proportion of American youth that in the course of years would come to the actual killing of fellow men would be actuated at the moment by lofty motives, such as love of home and country, and unselfish devotion to the highest interests of humanity.

Despite the heterogeneous character of the people of the United States as respects race or stock, the masses of the people worship the same precious ideals of liberty, law, and public happiness. At heart they know that these ideals, so dear to them, will have to be protected and furthered by force for many a year to come, the world being what it is. Everybody hopes that the world is going to be very different hereafter from what it is in these grievous days of return to primitive savagery; but the conduct of the liberty-loving nations to-day and to-morrow must be determined by the hard, actual facts. They cannot organize now the perpetual defense of liberty under law; but they can provide promptly, through practicable alliances, securities which will last at least for one generation.

Few, if any, men have worked harder for peace than President Eliot. These conclusions of his, coming as they do after earnest and long consideration, should receive most careful attention.

IX

Changes in Organization Resulting from the Present War

GENERALLY speaking, every great war brings in its train a series of changes, some of them temporary and some more or less permanent. The developments in the present world's war have been in several directions. First, in the air, in aviation, we find a most marvelous development. From a few aviators, with uncertain functions, aviation has grown to large, well-organized corps, numbering thousands of officers and men in the principal armies. Great speed and capacity for sustained flight characterize the more recent types of fighting and reconnaissance machines. With the improvement in the machines has come great increase in skill on the part of the men handling them. Weight-carrying capacity has been developed rapidly, and some very large planes are being constructed for the purpose of carrying a maximum amount of high-explosive bombs. Machine guns—sometimes two of them —and larger guns are common in aeroplanes. The 37-mm. gun and various types of rocket gun are found in the aviation squadrons of the con-

tending armies. The increased use of the aeroplane is indicated not only for reconnaissance purposes and for the purpose of attack through the use of bombs on the enemy's forces, destruction of his roads and bridges, railway trains, arsenals, dockyards, foundries, and other establishments of military utility, but also for the control of artillery fire. In this latter field of activity the aeroplane has become invaluable. Equipped with a wireless of simple design or other methods of transmitting information, by signaling it enables the artilleryman to locate his unseen target with great rapidity and at very great distances — distances never before attempted. There is also a probability of its increasing use in marine attack, both for the dropping of large, high explosive bombs and the possibility of its use as a means for controlling the dirigible, as well as for carrying the ordinary marine torpedo to a point within striking distance of its objective. It has also been of the greatest value in developing and making possible the use of high power, long-range guns of the naval type by giving information as to the location of the target and by directing the fire.

Never before in the world's history has artillery been used to such an extent as in the present war, and never has anything approaching the present expenditure of artillery ammunition been seen or even anticipated. The supply required

for modern military operations must be practically inexhaustible, and plants must be so organized and equipped as to turn out the supply required. The amount is so vast that it cannot be held in reserve in sufficient quantities. The range of modern field artillery has been greatly increased, and the heaviest types of guns have been mobilized. The 17-inch howitzer is in the field, is mobile and readily moved from place to place. The 12-inch howitzer is common in the battle fields of Europe to-day. The 9.2 high power naval gun is in the field, mounted on a railway carriage of special construction. The 15-inch howitzer of great power is also mounted on a railway carriage, both for use and transportation purposes. There are numerous types of long-range guns of smaller caliber.

These guns have radically changed the type of field fortification. It is doubtful if there will be much more done in the way of constructing concrete and steel forts in field fortifications of the permanent type. The present indications point strongly to the development of the fortified area policy: that defensive armament will be so mounted as to be rapidly movable so that its position can be changed as circumstances require. Earthwork defenses will largely replace existing types of fortifications.

The development of mobile artillery of very heavy type would be of the greatest value to this

country as a means of defense for the many harbors which, while not sufficiently important to justify the erection of expensive coast fortifications, are nevertheless valuable rendezvous for a fleet and suitable landing places for expeditionary forces. This heavy, movable armament will render the defense of such places easier and much less expensive, and it will be available for land operating also.

There has also been great development in machine guns and tremendous increase in their use. The line which distinguishes the machine guns from the automatic rifles is a somewhat arbitrary one, but whether we call them automatics or machine guns is not important. The use of rapid-fire automatic rifles using infantry ammunition has gone forward by leaps and bounds till there is practically no limit to the number of machine guns which will be required; their numbers will be determined by the needs of the immediate situation. In the present war, positions have been held by small numbers of men equipped with machine guns against strong attacks. One portion of the forces was holding their line largely with rapid-fire artillery, another, largely with machine guns, and another, less fortunate and less well prepared, was holding it at great cost with rifles. Portability, simplicity, and usability in any position, upside down, lying on side, or for straight overhead work, are

the characteristics which are wanted in machine guns. They must bear rough handling, and be of simple construction; in a word, they must be, if they are to meet the demands for future war, almost foolproof. Complicated machines are of little use in the hands of other than highly trained mechanics, skilled in nursing a complicated machine.

There are two types or classes of machine guns which are almost as distinct as the heavy and light field artillery. First, we have the heavy machine gun with its water jacket or other device for cooling. One great objection to the water-cooled guns is the presence of steam after a certain amount of firing, which, like the smoke of the old powder, tends to locate the gun. These guns are mounted on a tripod or on a low, heavy carriage, fed usually by a canvas or woven belt carrying cartridges. These heavier machine guns are used commonly in prepared emplacements. They are rather too heavy to advance with the attacking troops when the latter are making rapid movement to the front. They have their functions and are a very vital portion of the machine-gun equipment. They are capable of long-sustained rapid fire. They also have their objectionable features, which are their weight and the number of men and care required to manipulate them. Second, there is also the lighter type of gun which one man can carry. It is fed from an in-

closed simple form of metallic magazine, can be used in any position, and is invaluable for service with troops when moving forward rapidly and under conditions where it is necessary to seize and organize a position with the minimum of delay. This type of gun is also extremely useful, and is used very extensively. It enables positions to be quickly organized and held by the minimum number of men. The number of this type of gun being brought into use under present conditions is practically limited only by the number which can be obtained and the supply of ammunition. While these two types of machine guns each have their own particular and special field, they are interdependent. The light guns are in numbers as 8 to 1 of the heavy type, and this proportion is increasing in favor of the light gun. All troops equipped with machine guns should have guns of each type, and plenty of them. To fail to provide them invites disaster.

There has also been an enormous advance made in the use of barbed-wire entanglements, devices for tunneling and mining; also in the use of chemicals for the purpose of generating poisonous gases, producing liquid fire, high explosives, etc. Hand grenades have become an important feature of trench fighting.

Training in the use of hand grenades receives great attention. Men are taught to throw hand grenades with as much detail as a baseball pitcher

is taught to pitch. The overhand throw is used, and great accuracy is required. This mode of warfare is very formidable. Most of the attacking troops are supplied with grenades, especially the front lines, and in addition there are special bombing detachments. Hand grenades are of various types. There is also a rifle grenade, held in the muzzle of the ordinary rifle gun, by a projecting rod of wood or metal and fired by the use of blank cartridges. These rifle grenades are of the greatest value in attacking machine guns and for destroying machine-gun embrasures and emplacements and putting machine guns out of action. Ordinary rifle fire will not do this, and it is difficult to carry small quick-firing guns with the attacking line.

Bomb-throwing machines and aerial torpedoes have come into use to an extent never before thought of. In a word, chemistry has taken a more important position than ever before.

The motor vehicle has largely taken the place of animal transport, not only for moving supplies of all kinds, but for the transportation of ammunition and ordnance. The bicycle and the motorcycle have come into very general use for couriers, for the rapid moving of troops, for the transportation of machine guns, etc. Armored cars of dimensions never before thought of have appeared on the battle field—cars capable of passing over all kinds of obstruction, even to

moderate sized trees, walls, ditches, shell craters, etc. The present war has tended to develop a number of types of motor transport, each having its own particular field of activities. On the permanent highways of solid and substantial construction, heavy trucks have been used—trucks carrying four to six or even more tons; but for general all-round use the truck which has been found to be of the greatest value has been the 1½ to 2-ton truck. Tractors of various kinds have also been used extensively for hauling heavy guns.

There is nothing, however, in these developments to indicate that war has become any more deadly in proportion to the numbers engaged or that the general basic principles underlying the conduct of war have been modified. Where contending armies are intrenched over long fronts, we find mining, bombing, the use of hand grenades, machine guns in vast numbers, immense amounts of artillery, gas, liquid fire, and other means of defense and offense. In other areas, where mobility is required, we find the everyday, long familiar conduct of war in full and normal operation. Of course, cavalry is not used mounted where interlocking lines have dug in, but it does not indicate that it will not be used where the ordinary conditions of war prevail, which means in the great majority of instances.

On the whole, while we see many new things,

we do not find any new principles. The man's chance to-day is really better than it was in the days of the Roman legion, when he had to meet foot to foot and breast to breast well-equipped and well-trained individual antagonists. The guns have a longer range and the explosives have greater power. On the other hand, the troops are more dispersed and fighting at greater distances, and except in exceptional instances it can be safely said that the loss of life, in proportion to the number engaged, is in no way heavier than in the days when Frederick the Great's rapid-firing, highly trained troops met the enemy.

Airships dropping bombs have not exercised a determining influence in any field of activity. They have been annoying, killed in many instances noncombatants, destroyed considerable property, but in no way have they determined the issue of an action, nor do I believe that they have had an appreciable result upon the outcome of the struggle. The value of aerial control has been in the skillful and exact placing of artillery fire. Aerial observation and control of fire have gone hand in hand and have made it possible for the supporting artillery not only to aid its own infantry up to the last moment, but also to place a screen of fire in front of them and on their flank which makes hostile attack from those directions difficult and costly. Aerial reconnaissance has been of the greatest value.

New uses have been found for disused devices. Thus the steel helmet has come back apparently to stay, and its use has resulted in the saving of thousands of lives which otherwise would have been lost from head wounds. The bayonet has come back again and come back very strong. Its use has been very general in the close attack, and with it for trench work has come the trench knife—a short, ugly weapon for close trench fighting.

Success in war, with all its mechanical devices, still depends upon the well-trained, well-disciplined, well-equipped, and well-led soldier, and not upon the possession in the hands of undisciplined and untrained men of certain devices or inventions. All of these new or modified implements of war are of little value except in the hands of trained and skilled men. It is particularly important in this country that we should not be swept off our feet by the reports or recommendations of observers in any single area, especially those in the areas where the campaign has settled down to operations which are really those of siege. The real lesson of the war is organized *preparedness*. By this I mean that organization of all the resources of a nation and the recognition of the fact that the fighting line is a relatively small part of the competent force, using the word as applied to all who are connected directly with the conduct of war or the

preparation of munitions and supplies of various kinds. Modern organization means the concentration of the best intelligence, the maximum energy, and the largest possible proportion of the resources of a nation for the accomplishment of its object.

Hand in hand with improvements of, and additions to, the means of destruction have come improved methods of sanitation and new remedies for saving life. Camp sanitation has been brought to a point of efficiency never before known, certainly in camps of the enormous dimensions of those used during the present great war. Typhoid has been practically removed by the use of the typhoid serum. Tetanus has been done away with by the use of the antitetanus serum. Quick transportation of the wounded to areas where they can receive proper treatment has also been one of the developments coming from the employment of motor transport, hospital trains have been improved, and the Red Cross with its thousands of trained medical officers and nurses has come to the assistance of the military personnel to an extent never before known.

The Red Cross personnel must be developed to an extent which will permit it to meet the demands of war outside the immediate theater of military operations. To do this effectively, it must contain great numbers of medical officers, nurses, transport trains, and organized hospitals

of various types, and its personnel, commissioned and enlisted men, must become in time of war in effect a part of the army and operate under the general control of the designated military authorities.

X

Special Training and Additional Training

Each great war generally brings in its train certain new conditions or modifications of old conditions, changes in equipment and in arms, which require special training. Then again, special training is required for service in special areas. For instance, if men are going on a winter campaign in a country with much snow and ice, it may be necessary that they should be trained in the use of skis and snowshoes. Conditions where great armies are intrenched and are resorting to the use of trench mortars, bombs, mining operations, etc., require special training in these varied classes of operations. These are exceptional conditions and require special handling. It is a matter of common knowledge that men are trained in the field much more rapidly than elsewhere, when officers and means are available. This is due in part to the psychology of the situation. They see all about them things which indicate the need of thorough training if they are to be successful. They are being instructed and trained in the kind of work which is

especially important in their immediate theater of operations. All this tends to keenness and increased interest, and consequently makes more rapid training possible. Moreover, troops under training within the area of operations are impressed with the necessity of quickly acquiring efficiency as a measure of safety and protection. Everything spurs them on to unusual efforts.

Special and additional training is generally needed for reservists who have been for any considerable period of time away from the colors. This is especially necessary in view of the rapid wastage and constant replenishment of losses. Regiments in the long-continued struggles of modern war are filled up again and again with new men, many of whom have been a long time without thorough training.

In the present struggle the necessity of creating officers rapidly has been very great. All kinds of expedients have been resorted to. Cadet schools for officers have been established on the front where the young officers under instruction are observing operations actually in process. This instruction is necessarily of the most intensive character. Time and energy are devoted to the essentials. Officers and noncommissioned officers who have just returned from the front are especially valuable as instructors, provided they are well informed. The men listen to them with unusual attention and accept what they say

as coming from one who, having had experience, must know whereof he speaks.

There is much to be taught. Detailed and extensive instruction in handling hand grenades and bombs has again become a feature of war to an extent never before known. Men have had to be most carefully trained in the use of the bayonet under various conditions. The introduction of gas has made special training necessary. These and many other forms of training are in addition to the regular training. Losses are much more readily replaced by trained soldiers in countries which have compulsory training. In countries where a small professional army is maintained, and no system of reserves, losses have to be made good with untrained men, oftentimes to such an extent as to almost incapacitate organizations for effective service.

We have as yet no adequate system of reserves. We have a small regular army, no system of general training. The officers of the regular army are barely sufficient to handle it effectively at war strength. Officers detailed from the regular army or militia for duty with volunteers must be replaced by the promotion of enlisted men or by the appointment of untrained men from civil life, who will themselves require months of intensive training before they can render effective service, or be intrusted with the command of men in campaign. Whatever else

is done, it is most important to train a large corps of reserve officers as soon as possible. Recent legislation has recognized this, and steps are being taken to build up an Officers' Reserve Corps.

The men who are coming to the defense of their country in time of need have the right to demand trained and efficient officers to lead them. Parents whose boys will fill our armies must see to it that their lives are not thrown away by incompetent leaders in our next war as they have been in the wars of the past. The time has come to show by intelligent preparedness some degree of interest in the lives of our own people. Unnecessary waste of human life has characterized our past wars—a waste due to pure neglect of the most elementary and common-sense measures of preparation. The defenders of our country are entitled to a sporting chance, and they should be given it. Frantic efforts and appropriations made when war is on are of no avail. It is like an attempt to build the lifeboats out of the timber of the sinking ship. It spells wanton failure to take advantage of the opportunities of peace to prepare for the storms of war.

XI

General Staff Corps

The establishment and organization of the General Staff Corps and the founding of the War College were acts of great and far-reaching importance. Elihu Root was then Secretary of War and is primarily and principally responsible for both.

If the policy of the founders is followed out, the General Staff will be of inestimable value in building up a sound military policy; one in which there will be a frank recognition of the fact that the Staff Corps were established and are maintained to supply and serve the line, and that their object is the efficiency of the fighting line in everything pertaining to equipment, arms, supply, transportation, sanitation, etc. The fighting soldier, whether he be officer or man, stands at the top of the military ladder and not at the bottom. His efficiency as a fighting machine is the sole object of the creation and maintenance of the Staff Corps. It will result also in the building up of a better educated body of officers, men with broader views, and eventually in establishing a sound national policy. The latter,

thus far, we have never had. In a word, the purpose of the General Staff, acting under the direction of the Chief of Staff, representing the Secretary of War, is to so coordinate the activities of the various supply departments and Staff Corps that the best possible results may be obtained with the means at hand; that the activities and tendencies of Staff Corps and departments may be subordinated to an approved policy. The Chief of Staff and the General Staff are the instrumentality through which the President and his representative, the Secretary of War, are able intelligently to exercise the command and control of a highly technical organization, the army. The Chief of Staff and the General Staff furnish the skilled advice and counsel which enable the President to exercise his constitutional functions undiminished in their scope and power in a manner to produce the best results.

The first step taken which led to the establishment of the General Staff Corps is found in a proposition set forth, in 1899, in the Annual Report of Elihu Root, Secretary of War. This proposition had the strong approval of the President. On February 19, 1900, the Secretary of War convened a board of officers, of which General William Ludlow was president. General Ludlow visited Europe for the purpose of studying the general staff corps of the principal European armies, and his report influenced very

largely the policy finally adopted in the establishment of this corps.

The Secretary of War in his report of 1901 stated that the creation of the War College Board, which had been authorized in November of that year, was as near an approach as practicable under the existing law to the establishment of the General Staff; that nevertheless it could not adequately perform all the duties of a general staff. Accordingly he urged that Congress should treat the matter in a broader way and establish by law a general staff of which the War College should be a division. This was further elaborated in his report of 1902, in which he urged that in creating the General Staff, the designation of the officer hitherto known as the "Commanding General of the Army" should be changed to "Chief of Staff," and that the latter's powers should give him the immediate direction of the supply departments, etc. The recommendations in these reports and in subsequent hearings before committees of Congress resulted in the passage of the act of February 14, 1903, creating the General Staff Corps.

The organic act is published in General Orders No. 15, War Department, 1903; it has been amended slightly by the National Defense Act of 1916. These are given in Vol. II, this series.

The efficiency of the army will depend very largely upon carrying out in spirit as well as in

letter the policy laid down in the organic act creating the corps and fixing its duties.

The Chief of the General Staff Corps has a dual position. He is not only Chief of the General Staff Corps, but he is also Chief of Staff, and in this capacity he exercises his coordinating and supervising power. All his orders and directions are given in the name of the Secretary of War, and whatever authority he exercises is as representative of the Secretary of War or the President. He can issue direct orders (orders in his own name) only to officers of the General Staff Corps who are on duty in Washington and not attached to the staff of any superior commander.

Details to the General Staff are limited to four years. This is a wise provision. One of the most serious obstacles to military efficiency is the continuance of officers away from troops for a long time. It matters not whether they be officers of the Staff Corps or officers of the line. They should return to and serve with troops at sufficiently frequent intervals to keep themselves in touch with the needs and conditions of the army in all its fields of activity. Long continuance at Washington results, in practically all cases, in establishing conditions unfavorable to a high degree of line efficiency.

The creation of the General Staff means a subordination of the policy of the different Staff

Corps to a general policy, whose purpose is the best possible use of our resources of all kinds in order that the highest degree of military efficiency may be secured. It was impossible under the old system of bureaucratic administration to obtain a high degree of military efficiency or to make the best use of the military resources of the government. Consciously or unconsciously the Staff Corps are often struggling for self-aggrandizement, for extension of their own powers and authority, thus oftentimes becoming involved in conflicts with other Staff Corps. Under these conditions, the real object of the creation of the corps—military efficiency of the army—was often lost sight of to an unfortunate extent.

Upon the predominant control of the General Staff along the lines laid down in the organic act creating it depends to a great extent the military efficiency of the United States military establishment.

XII

The System of Military Education in the United States

Military education under direct control of the War Department pertaining strictly to the army is as follows:

1. The United States Military Academy, at West Point, New York, for the education of cadets who are commissioned on graduation as second lieutenants in the army.

2. Post schools for the instruction of enlisted men of the regular army at military posts.

3. At each military post a garrison school for the instruction of officers of the army in subjects pertaining to their ordinary duties.

4. The Army Service Schools, comprising the following:

a. The Army War College, Washington, D. C.

b. The Army Staff College, Fort Leavenworth, Kans.

c. The Coast Artillery School, Fort Monroe, Va.

d. The Engineer School, Washington Barracks, Washington, D. C.

e. The Mounted Service School, Fort Riley, Kans.

f. The Army Medical School, Washington, D. C.

g. The Army Signal School, Fort Leavenworth, Kans.

h. The Army School of the Line, Fort Leavenworth, Kans.

i. The School for Bakers and Cooks, Washington Barracks, Washington, District of Columbia.

j. The Schools for Bakers and Cooks, Presidio of San Francisco, Cal.

k. The Army Field Engineer School, Fort Leavenworth, Kans.

l. The Army Field Service and Correspondence School for Medical Officers, Fort Leavenworth, Kans.

m. The School of Fire for Field Artillery, Fort Sill, Okla.

n. The School of Musketry, Fort Sill, Okla.

o. The Signal Corps Aviation School, San Diego, Cal.

5. Military departments of those civil institutions not under War Department control, at which officers of the army are detailed as professors of military art, under existing provisions of law. This group contains a very large student body, and embraces the agricultural and

mechanical colleges established under the Morrill Act.

6. Certain State colleges and private institutions at which officers of the army are on duty in charge of military instruction; also a large number of schools throughout the country.

A complete description of the system of military education in the United States will be found in a book published by Colonel J. L. Reeves, to which reference is suggested.

Formerly, one hundred officers only were allowed for duty at such universities, colleges and academies, and they were assigned to States on a basis of population. This number and system have proved unsatisfactory, and recently the number has been very materially increased. I believe that possibly one thousand officers will be required in the near future for this work if it is to be properly conducted. In large universities, such as the University of California, Cornell University, and the University of Illinois, each with approximately two thousand men under military instruction, not less than one officer should be detailed for each four hundred men and major fraction thereof. When we have a sufficient number of officers, they should be detailed one for each three hundred men or major fraction thereof; and in detailing officers to an institution, an effort should be made to have the different arms represented as far as possible.

Thus, in the larger technical schools special effort should be made to secure the detail of an officer of engineers, in order that training at these institutions may be made the best use of and as large a number of men as possible trained as military engineers. Modern war, in certain features of its development, makes an unprecedented demand upon the engineer.

No systematic effort has been made to keep track of and continue the training of the thousands of graduates of the Land Grant colleges and establishments giving more or less thorough military training.

According to the War Department reports, out of the 15,323 graduated since 1912, 1,100 have been recommended for commissions in the regular army. The establishment of Officers' Training Corps units in many of the large non-military universities and colleges will gradually increase the output in numbers and improve it in quality. If there had been a thorough standardization of the work done at the various universities and colleges where military instruction is given under officers of the army, and closer cooperation between them and the War Department, a very much larger proportion of the 44,529 men who have graduated since 1905 from the agricultural and mechanical colleges would be available as officers. As it is, only a relatively small proportion of them are fitted to assume the

duties of an officer at the present time. Under the system in vogue a great deal of excellent material has gone to waste. Thousands of graduates who should have been kept track of have been lost sight of. They are somewhere in the country, but their training has not been followed up and made use of.

Under the system which is to be put in force as a result of recent legislation it will be possible to turn out each year a very large number of men who will make good reserve officers after they have had a certain amount of field training. The War Department has each year conducted an inspection of the military colleges and schools at which officers of the army are on duty as instructors, and has grouped the best ten colleges and the best ten schools under the designation of "Honor Colleges" and "Honor Schools." (See Appendix I.) From each of the Honor Colleges a member of the graduating class is recommended by the faculty for appointment as a second lieutenant in the regular army. If this recommendation be approved, he is appointed without examination other than physical.

Order 32 (see Appendix II) explains the operation of the recent law which provides for the establishment of Officers' Training Corps units under two classifications—Senior and Junior—in universities and in preparatory schools, and further provides for military instruction in

certain schools, which do not come under these classifications. It recognizes also the military training camps which have been in operation for the past three years; and provides for the examination, appointment and commissioning of reserve officers from those who, after examination, are considered to be qualified for this position.

For the first time in our national history we now have machinery which, if taken advantage of, should produce in a few years a very considerable force of reserve officers and enable us to keep up easily a corps of from 50,000 to 100,000 of such officers. The present law limits the number of officers and reserve officers to 50,000. I believe this number should eventually be doubled. In the Civil War, with one-half the present population, we had, North and South, in the neighborhood of 190,000 officers. So the provision of 100,000 reserve officers at the present time would not seem to be unreasonable in view of our own great increase in population and wealth and of the changed conditions as to organization throughout the world. Officers must be trained in time of peace.

XIII

Standardization and Coordination of Instruction and Training

Up to the present time there has been no general system of military training in our universities and schools. Here and there military training has been maintained. Generally speaking, each institution has proceeded more or less on its own lines, so far as the corelated studies are concerned. There has been no general standardization, as there should have been, of the military course itself and of the courses in corelated studies—studies which should be taken by all who take the military course. Consequently, there has been no general standard of attainment which could be counted upon. In the schools, lack of standardization and systematized effort has been even more noticeable than in the colleges and universities. It is most important that definite military courses should be established, and that in conjunction with these there should be well-arranged courses in subjects bearing upon the military course and necessary to those taking it.

The first serious effort to provide officers through the establishment of military training in

colleges and schools is found in the Morrill Act of 1862, when the nation, finding itself without officers, attempted to make wise provisions for the future by establishing the so-called "Land Grant" or agricultural and mechanical colleges, and prescribing a course in military training for all students. This act provided for officers of the army, active or retired, to act as instructors. It led to the establishment of military instruction in colleges of this type; but there has been no sufficient standardization of the instruction, nor of the course pursued in the corelated branches.

There is too much of the humdrum of the barrack yard or the close-order drill, the details of which are quickly mastered by the average youth and college man and soon tired of, and, what is worse, often mistaken as representing adequate military training. A larger share of attention should be given to military history and policy, theory of organization and recruiting of armies, principles of universal service, obligations of the citizen for service in war, tactical walks, sand-box work, map reading and elementary map problems, minor tactical studies and field-service regulations. Students should have impressed upon them the basic defects in our military system, the causes for the long continuance of our wars and the ghastly and unnecessary losses.

XIV

The Plattsburg Idea — United States Military Training Camps

The year 1913 marked the establishment of what was known at the time as the "College Military Training Camp." The first camp was at Gettysburg, following immediately the encampment of the Union and Confederate veterans. This camp was established with a view to giving college men and upper-school boys of suitable age five weeks of intensive military training—training which should be characterized by thoroughness in the elementary work of the soldier and carried as far as possible in the limited time available. About two hundred and sixty boys and college men attended this camp. A similar camp was held at Monterey, Cal. The results were so encouraging that in the following year camps were established at Burlington, Vt., Asheville, N. C., Ludington, Mich., and again at Monterey; and in 1915 at Monterey, Ludington, Fort Sheridan, Illinois, and Plattsburg; in 1916 at Plattsburg, Oglethorpe, Fort Douglas, Utah, San Antonio, Tex., and the Presidio of San Francisco. The attendance has gone forward

by leaps and bounds each year, the total this year being about twelve thousand six hundred in the Eastern Department alone, and approximately two thousand in other departments.

The Plattsburg idea has come to stay. It marks the awakening of our people to an appreciation of the need of systematic universal military training and a recognition of its value, not only as a means of preparation for war, but still more as a preparation against war and a preparation for life's work. There has never been assembled in this country a better or more earnest lot of men than the men who have assembled in these camps. Their progress has been remarkable, and has far exceeded the expectations of those who were in charge. The men cover in a single month as many hours' work as the average guardsman gets in one enlistment. They cover as much ground as is covered by the average recruit in sixteen weeks. Discipline is strict and rigid. The military work is far more intensive than is attempted in the regular service. This procedure is rendered possible by the high degree of intelligence, the earnestness and keenness of the men. Some men have had as many as five periods of training, having attended more than one camp during a single season. During the present year some hundreds of men will qualify as reserve officers. Next year the number should be nearly two thousand.

The Plattsburg training (and when the term Plattsburg is used, it applies to all camps which maintain the standard and system of that camp) has in view the training principally of men to be officers of the reserve. It is believed that it will prove one of the best sources of supply. The influence of the camps for a sound military policy is far-reaching. I know of no more serious movement in this country, or none which promises more of value for the national defense.

Each year will see the camps upon a definite footing with a course covering three periods. Combined with these should be courses of reading and study to follow during the winter.

As many of the men as possible who qualify as reserve officers should be attached to the regular army for from three to six months to learn something of supply and administration. This will be especially important, as many of these men will be of an age which will necessitate their qualifying for the grades of captain and major, and they will require this class of instruction far more than those who take the examination for the grade of lieutenant.

The little group of students at Gettysburg and Monterey were pilgrims indeed, and the bronze button of the National Reserve Corps—for that was what they named their organization, with the words "Organized, Prepared, Ready"—bore words of promise which, if lived up to, will

enable this nation to serve its purpose in the world.

Plattsburg training has the approval of the President of the United States and presidents of many of our great universities. From the commencement of these camps in 1913 a body of college presidents known as the "Advisory Board of College Presidents" has cooperated with and been closely in touch with the military authorities in charge of the camps.

Their advice and assistance have been most helpful. The members of the board are:

President Henry Sturgis Drinker, Lehigh.
" John Greer Hibben, Princeton.
" A. Lawrence Lowell, Harvard.
" A. T. Hadley, Yale.
" John H. Finley, New York.
" H. B. Hutchins, Michigan.
General E. W. Nichols, Va. Military Inst.
President B. I. Wheeler, University of Cal.
" J. G. Schurmann, Cornell.
" E. L. James, Illinois.
" J. C. Kirkland, Vanderbilt.
" A. C. Humphreys, Stevens.
" H. A. Garfield, Williams.
" G. H. Denny, Alabama.
The Rector of the Catholic University, Washington, D. C.

Others representing the West and Southwest will soon be added.

The Plattsburg idea spells better citizenship, a truer conception of the obligations of the citizen of a democracy, a better and deeper understanding by each other of the classes and groups of our population, a loftier patriotism, a people homogeneous in sentiment toward the nation and in appreciation of what they owe the nation, a real and virile Americanism.

XV

Service Schools and Educational Institutions Giving Military Training in the United States Army

These comprise the United States Military Academy at West Point and the various service schools for officers, noncommissioned officers, and in some instances other enlisted men.

The United States Military Academy at West Point

The Military Academy, or West Point, as it is commonly termed, was established in 1802. Brigadier General Henry Knox, chief of artillery, was perhaps the first to suggest the establishment of a military academy. Alexander Hamilton vigorously seconded this plan, and it had Washington's strong approval. It was not adopted, however, until more than a quarter of a century later. In 1781 we find that a simple military engineering school had been established at West Point.

In 1794 Washington recommended the establishment of a school for artillerists and engineers at West Point. The school was established, but

suspended in 1776 because of destruction of buildings by fire.

Under the act of March 16, 1802, the Military Academy was established with a corps of not over twenty officers and cadets. It was opened on the 4th of July of that year. The academy had a precarious career during the period 1810-1812. By the act of 1812, April 29, the institution was reorganized with authorization for a maximum of two hundred and fifty cadets. In 1817, under Sylvanus Thayer, major of engineers, "The Father of the Military Academy," the academy entered upon its career, which has continued with ever-increasing vigor until this day. The total number of graduates, 1802-1913 inclusive, is 5,205 (Reeves).

Appointments are made as follows: One from each Congressional District, two from each State, two from the District of Columbia, and forty from the United States at large. Each Territory, including Porto Rico, is entitled to one appointment. Appointments from Congressional districts are made on the recommendation of Representatives; from States on the recommendation of a State Senator; from Territories by the Delegate; from Porto Rico by the Resident Commissioner; from the United States at large by the President. The Secretary of War is also allowed to permit four Filipinos to be appointed on recommendation of the Philippine

Commission. Candidates must be between the ages of 17 and 21 at the date of admission, of sound mind and body and residents of the State, Territory, etc., from which they are appointed. After a cadet has finished three years in the academy his successor may be appointed. The academy has a capacity of about seven hundred and thirty cadets. At present, incident to recent legislation, this number has been greatly exceeded. The course covers four years and includes not only the cadet's general, but his professional or technical education.

The great forces behind the establishment of West Point were Washington, Hamilton, Pickering, Knox, and McHenry, the then Secretary of War. Alexander Hamilton, as inspector general, laid before the Secretary of War a plan for its establishment which had the approval of Washington, who only three days before his death stated in a letter to Hamilton:

> The establishment of an institution of this kind on a respectable and extensive basis, has ever been considered by me an object of primary importance to this country; and while I was in the chair of Government, I omitted no proper opportunity of recommending it, in my public speeches and otherwise, to the attention of the Legislature.

These men, soldiers all, knew the value of trained officers and appreciated the need of an institution of the type they founded. Well has

the academy served the nation; a thousand times has the wisdom of its founders been shown.

Ever since its foundation West Point has been one of the bulwarks of our military system—the keystone of the military arch in more ways than one. Instruction is thorough, discipline rigid, moral standards high, character and rectitude essential to continuance. West Point does not claim to turn out finished officers any more than a great law school claims to turn out finished lawyers. It does turn out, however, men who have the discipline, training, and education to take up and follow the profession of arms successfully. It does teach its graduates to apply their minds intelligently to any problem which may confront them. It launches the young officer upon his professional career with the best possible equipment which one can have without actual service.

Candidates for admission are required to pass an entrance examination which thoroughly tests the soundness of their elementary work. It comprises algebra, including quadratic equations and progressions, plane geometry, English grammar and composition, and some English literature, geography, descriptive and physical, general and United States history, as set forth in circulars of the War Department.

Candidates are admitted also who have passed the College Board examinations or the entrance

examinations of an approved college or university without conditions, provided those examinations require certain units in mathematics, English, and other branches. This system presents great advantages. It avoids the product of the cramming school, gives as a rule a cadet with a broader and more liberal education, and permits preparation for college and for West Point to be accomplished at the same time. It gives the appointing power an opportunity to apply something of the methods employed in selecting the Rhodes scholarships, i.e., to select men who have not only the educational, but also certain other qualifications, such as qualities of leadership. Candidates entering under these requirements have to pass the required physical examination.

The pay and allowances of the cadet amount to about $710 per year. No money from outside sources can be received without special authority. The spirit of true democracy prevails among the cadets, and each stands absolutely on his own merits.

It is a mean spirit which does not feel the inspiration of West Point. Unfortunately, West Point, even in time of peace, can supply but a portion of our officers. In time of war the tens upon tens of thousands required must be secured from other sources.

Army War College

The first legislative action relating to the Army War College was contained in the army appropriation act of May 26, 1900. The Army War College was formally established on November 27, 1901, by paragraph 7, General Orders 155. This order provided for a War College Board to prepare regulations for the government of the college.

This board was actually formed July 1 of the succeeding year. Major General Young was president of the board. In August, 1903, the board was dissolved, and the duties assigned to it were transferred to the General Staff under direction of the Chief of Staff.

The purpose of the Army War College was announced in General Order No. 116, War Department, 1907.

The purposes in substance were as follows:

To make a practical application of knowledge already acquired, not to impart academic instruction;

The direction and coordination of military education in the army and in civil schools and colleges at which officers of the army are on duty as instructors in the military art; and

To provide facilities for, and promote advanced study of, military subjects and to formulate the opinions of a college body on the subjects

studied for the information of the Chief of Staff.

Proper official and civil personnel was provided. Thus far the War College has fully justified its establishment and has been of the greatest value not only in the higher training of officers, but in settling and passing upon various questions of military policy and administration which have been submitted to it from time to time by the Chief of Staff.

The period of study covers the usual academic year, the last month of which is devoted to tactical rides including studies of campaigns or portions of campaigns of the Civil War, usually those in the Washington-Richmond area.

Only those officers are allowed to attend the War College who are graduates of the Army Staff College or have shown proficiency through an examination.

Army Staff College

The Army Staff College was established for the advanced training of certain selected graduates of the School of the Line. The work is advanced work of the same general character as that pursued at the School of the Line. The men assigned are those who have distinguished themselves as students in the School of the Line. The course is divided into several departments representing the various branches of the military

art. The main divisions are the Department of Military Art, Department of Military Engineering, Department of Military Law, and the Department of Languages. The instruction in military art and military engineering combines both theoretical and practical work. It is intended to develop the initiative of the student and fit him for higher command, and also to prepare him better to discharge the duties of staff officer or officer of the General Staff.

Army Service Schools

The foundation for the Army Service Schools was laid by General William T. Sherman in 1881, when he established the Infantry and Cavalry School on lines similar to those of the Artillery School at Fortress Monroe. In writing to General Sheridan about the embryo school, Sherman said:

> I want this new school to start out with the doctrine that service with troops in the field in time of peace is the most honorable of all, and the best possible preparation for high command when war comes, as it always does, suddenly.
>
> I don't want to meddle with this new school or to have it the subject of legislation, because if this is done like West Point it will be made political and taken out of our control. The school should form a model post like Gibraltar with duty done as though in actual war, and instruction by books be made secondary to drill, guard duty, and the usual forms of a well-regulated garrison.

The purpose of the school was instruction in organization and tactics. The school grew, its scope of instruction widened, and a systematic course of practical and theoretical work was built up.

The war with Spain caused a temporary suspension of the activities of the school. It was reopened and its scope much amplified by Secretary Root in 1901. Out of it came the General Service Schools and Staff College. In 1904 there was further reorganization, and again in 1905; and finally in 1907 the present title, "Army School of the Line," was adopted.

The purpose of the school is the better preparation of officers, for general staff duty and the duty of higher command, through a careful course of theoretical and practical work, tending to develop their knowledge of the use of the various arms in war and their training in time of peace.

Army Signal School

Among the schools forming the Army Service Schools is the Army Signal School. Its purpose is to prepare officers of the Signal Corps better to discharge the duties of their corps and to give them an opportunity for advanced and special work. Its name describes its general purpose. It deals almost exclusively with the duties of the Signal Corps. The course is a thorough one.

Army Field Engineering School

This school is primarily for the instruction of officers of the Corps of Engineers, and the course embraces the various departments of military engineering. The work, which is both practical and theoretical, covers very largely the application of military engineering to the conduct of modern war.

This school furnishes instruction also to officers of the Engineers of the National Guard and to students of the Army Service Schools.

Army Field Service and Correspondence School for Medical Officers

This school, as its name implies, is for the training and education of officers for the medical establishment, and embraces the duties of medical officers in field and garrison. Special attention is devoted to the instruction of these officers in their purely military duties. The work is both practical and theoretical, and is supposed to prepare the medical officer to discharge his duties in peace and war.

Coast Artillery School

This is the oldest of all the Army Service Schools. It was founded in 1824 and has grown from a small beginning to its present dimensions. Its name indicates its purpose, namely, the thor-

ough instruction of coast artillery officers in the various branches of coast artillery work. It covers naturally many subjects—chemistry, mechanics, electricity—in addition to what may be described as pure artillery work. The ordinary course covers one year. There is also an advanced course for students who have shown special qualifications. The work includes submarine mine defense and land defense. It is an extremely thorough and very valuable course. There is also a school or a department for the education of enlisted men, known as the Department of Enlisted Specials, where enlisted men are trained for the higher grades in the coast artillery noncommissioned staff.

Engineers' School

The Engineers' School of the United States army is situated at Washington Barracks. This school had its beginning in the early days of the past century. Its beginnings were somewhat nebulous and indefinite. Willets Point was finally decided upon as the site for the establishment of the school. The Engineers' School has been built up gradually and was continued at Willets Point, its course of studies being amplified from time to time. The work of the school as finally established covered an extremely broad field, including mineralogy, military reconnaissance and surveys, field astronomy, tidal and cur-

rent measurements, submarine mining work, and numerous other subjects closely related to the work of military engineering. In 1890 the official title was changed to "United States Engineers' School," and in 1901 the school was moved to Washington Barracks, D. C., where it has since remained. In 1904 the school was finally designated as the "Engineers' School." Its purpose is the advanced training of engineer officers. In 1909 military engineering pertaining to the army was transferred to the Army Field Engineers' School at Fort Leavenworth, Kans. The school is under the supervision of the chief of engineers, and as now organized consists of three departments—Military Engineering, Civil Engineering, and Electrical and Mechanical Engineering.

Mounted Service School

The Mounted Service School had its beginning in the act of Congress of January 29, 1887.

The school is located at Fort Riley, Kans. It is admirably situated, the reservation containing about twenty thousand acres. The school as now established consists of three subdivisions—the School of Equitation, School of Farriers and Horseshoers, and the School of Bakers and Cooks. The School of Equitation is again subdivided and embraces four courses: First, the course for field officers; second, the first-year

course for officers; third, the second-year course for officers, and fourth, the course in swordsmanship for noncommissioned officers. The course for field officers is a short course of approximately two months; there are two such courses in each year.

The purpose is to instruct the older officers in the principles of equitation as at present taught. The first and second year courses are, generally speaking, for officers of the grade of captain and lieutenant. Occasionally these courses are taken by field officers. The training in swordsmanship is for the purpose of developing instructors among the noncommissioned officers.

Prior to the establishment of this school, equitation has never received proper attention in our service. Our officers rode poorly, and they knew little of the science of equitation. This school has greatly improved the care of the horse, and it has taught officers how to get the most out of the horse, and has been a strong influence in building up and improving the mounted service.

United States Army Medical School

This school was established in Washington, D. C., in 1893. Its purpose is the instruction of approved candidates in their duties as medical officers of the army. The course, of one year, strives to give to the future medical officer that training which will especially prepare him to

serve efficiently in the Medical Department of the army at home and abroad.

Garrison Schools for Commissioned Officers of the Army

These schools are a part of the military educational system of the United States. Their purpose is to prepare officers better to discharge their routine duties. The courses are laid out from time to time by orders from the War Department. The course of instruction embraces those subjects a thorough knowledge of which is necessary for an officer properly to discharge his routine duties.

Schools for Enlisted Men

There are also post schools for enlisted men. These schools are maintained for the purpose of instructing enlisted men in the army in the branches of a common-school education. The purpose is to give enlisted men who desire it opportunity to secure a good common-school education.

School for Bakers and Cooks

There are two of these schools, one in San Francisco and one at Washington Barracks. There is also a school attached to the Mounted School at Fort Riley, Kans. Their name describes their purpose.

Service Schools

School of Musketry

This school, located at Fort Sill, Okla., was organized in 1907 and was at first established in Monterey, Cal. Its purpose is theoretical and practical instruction in the use of small arms, with a view to making officers and men better instructors.

The work includes also instruction in, and consideration of, possible uses of machine guns, automatic rifles, and the various devices which are presented from time to time looking to the improvement of musketry. The course covers not only the individual use of the rifle, but also its collective use, and great attention is devoted to developing the control and study of infantry fire. This, in fact, is the real object of the school—to make the best possible use of infantry fire, and the study of this important question brings in not only much theoretical work, but a great deal in the way of practical working out of the problems. The school has been of great value and has materially aided in developing military efficiency.

School of Field Artillery

The purpose of this school is for the practical and theoretical training of officers in field artillery. It was established in 1911 at Fort Sill, Okla., and has been of the greatest value in the

building up of a better knowledge of field artillery in its various fields of activity.

Signal Corps Aviation School

This school was established in 1913 at San Diego, Cal., and is still in a condition of development. Aviation in this country is years behind aviation in Europe. The officers in charge of the school have done the best possible with inferior material and limited means. The present Great War has greatly increased interest in aviation, and it seems probable that this school will soon receive the attention it deserves.

XVI

American Armies

United States

The army of the United States will be dealt with as a separate subject and in a separate volume. Brief general references have been made to it in discussing our country's wars. Recent legislation has materially increased it, so that when fully recruited, it will amount to a little over 200,000 men.

Some of the basic defects have been eradicated. Adherence to volunteers and militia is still a part of our general policy, despite the evidences of the past. The fault lies in the system, which in our case results in the gathering together of untrained men and officers at the outbreak of war; in divided control, insufficient training, and inefficiency. The quality of officers and men of the regular army is unexcelled.

The system of maintenance makes training difficult and a high degree of efficiency in large bodies almost unattainable. As a result of wide dispersion, practical field training in large units is about an impossibility.

The constructive work done by Elihu Root as Secretary of War in creating the General Staff is a bright spot in our military policy and the most hopeful feature of our recent military development.

Argentina

Universal military service. Population, approximately 7,467,878 (1912). Peace strength, 24,000; war strength, 260,000; total fit for service, 1,070,000. Annual budget about $17,000,000.

Argentina is, roughly speaking, about the size of the United States east of the Mississippi. Universal service was established in the Argentine Republic by the law of 1905, law No. 4707. Under this and subsequent laws all males born in the republic are bound to register at the age of 18 years and are liable to military service from 20 to 45 years of age, with the usual exceptions which exist in most countries. From the age of 20 to 21 they serve in what might be described as the first-line or regular army, and in the reserve of this force until they are 30 years of age. The reservists during these nine years must serve three periods of one month each of training. From 30 to 40 they serve in what is in fact a second reserve, called the National Guard. Those in the National Guard serve four periods of fifteen days each during their ten years of service in the National Guard. From 40 to 45 they are

enrolled in the Territorial Guard. The original law, or the law of 1905, and subsequent laws have been embodied in what are known as "The Organic Laws of the Army of the Nation." These laws define the classes in which the army is divided; go into detail concerning enrollments, and everything pertaining to the man's service, such as the duties of officers and privates and their relations, retirements, pensions, etc. The peace strength of the standing army being only some 20,000 of all ranks, it follows that the annual contingent which serves for one year, and then passes into the reserve for nine years, and then into the National Guard, is only a portion of the youngest class; that is, those who have in the previous year reached 20 years of age. The present system started in 1905, with the class then 20 years of age. The year 1916 marked the completion of the ten classes, one active and nine reserve.

Enrollment in the army is by ballot or lot, those drawing the highest supply the contingent for the navy; while the following numbers up to a total required for the army are passed into the regular army for a year, except 5 per cent of the army contingent, which is required to serve two years. This 5 per cent is selected from the first 5 per cent of the balance drawn. Those who escape the ballot pass into the regular reserve, and there spend nine years. The army also con-

tains volunteers, serving on contracts for the various instructional and other necessary services, as well as those who by transgressing the laws have no right to the ballot, and must serve. A single military tax of about $23 is levied on those who escape service with the colors. Those who are excluded from military service because of penal offenses also pay this tax. Failure to pay is punished by two years' compulsory service.

The promotion of officers is by seniority and selection.

From second to first lieutenant, one-third by selection and two-thirds by seniority.

From first lieutenant to captain, half by selection and half by seniority.

From captain to major, two-thirds by selection and one-third by seniority.

From major to lieutenant colonel, half by selection and half by seniority.

Above lieutenant colonel, by selection; half of the colonels from the army at large, half from the arm. Generals from the army at large.

The above rules apply in time of peace and to the regular army.

As the army is not kept at war strength, a system of command by rotation was initiated in 1914, which permits the efficiency of officers to be ascertained by their actual command of troops.

In 1912, eighteen Argentine officers belonging to all four arms were sent to Germany to be at-

tached to corresponding units and educational institutions there. In addition six field officers were sent to attend army trainings and maneuvers. In that year there were six German officers serving with the Argentine army as instructors.

Entries for commissions by those who do not serve in the ranks are by competitive examination, first, for entries into the Military College (at San Martin) and then by a standing on graduation. Some cadets, graduates from the national colleges or normal schools, are allowed to spend a year in the regiments and then proceed to the last year of the Military College course. Both classes on entering as cadets contract to serve five years in the permanent army. The President of the Republic is commander in chief. The Secretary of War has the direct, immediate control of the military establishments. He is assisted and advised by the Chief of Staff and General Staff. The organization and training are on German lines.

There is an excellent military college for the education of officers and a school of application at Campo de Mayo for their practical training. There is also a school for noncommissioned officers and an excellent permanent training establishment of musketry.

The total military strength of Argentina should be, when their system is fully developed, about 1,000,000 men. Officers of the German General

Staff and other carefully selected German officers have had a determining influence in the training of the Argentine army and the shaping of its military system. The General Staff is well organized on German lines and is efficient. The people are loyal, keen and energetic; they make good soldiers and take great pride in their army and navy. Universal training has tended to national efficiency and progress, and to building up a spirit of national solidarity.

Bolivia

Population, 2,300,000. Total peace strength, about 3,000. Military budget, 1915, about $3,081,000.

Military service is compulsory on all males from the twentieth to the fiftieth year. The law of February, 1910, provides for a permanent force of 3,153 officers and men. The army is a militia. Total service in the first line occupies five years, of which about one year is spent in the ranks. The next four years the soldier belongs to what is called the "Ordinary Reserve." After this the men pass to the "Extraordinary Reserve" for ten years, and finally complete their service by ten years in the "Territorial Guard."

Brazil

Population about 18,000,000. Total peace strength, approximately 24,000 men. There is

also a gendarmerie of about 20,000. Military service is made obligatory on all physically fit Brazilians from 21 to 45.

The war strength of the army is difficult to determine, for the number of reservists is unknown. Universal service has been in effect only since 1908. The army consists of fifteen regiments of infantry, each of three battalions, twelve rifled battalions, twelve regiments of cavalry, four squadrons and five regiments of two squadrons, and also five regiments of field artillery of nine batteries each, each battery having four guns. There is also a certain number of horse artillery and mountain batteries. Brazil is divided into thirteen districts. The troops are organized in brigades, described as strategical brigades, each one consisting of three regiments of infantry, four regiments of cavalry, one of field artillery and one battery of heavier artillery. Cavalry brigades contain from two to five or three regiments. The troops are armed with German rifles (Mauser). Men serve two years in the ranks, seven in the reserves, seven in the territorial army, and eight in the National Guard —for a total of twenty-four years. Reservists are supposed to be called up annually for four weeks while in the first seven years of reserve service.

Canada

Population, 7,500,000. Peace strength, prior to the Great War, about 4,000 men and officers. War strength, through use of active measures, about 90,000 men and officers. Total available war strength in men, about 1,100,000.

There will be something over half a million highly trained and experienced soldiers in Canada at the end of the present war.

The British act of 1904 placed the militia of Canada under the Militia Council, with a minister of militia and defense as president, and includes a civil, four military members and a finance member. There is also an inspector general and certain other personnel. Canadian land forces are divided into an active militia and a reserve militia, and the country is divided into six divisional areas and three military districts.

The active militia is raised by voluntary three-year enlistments, but can be, in case of emergency, compulsorily recruited by ballot or by drawing. It consists of a permanent force and a nonpermanent force and of various units or corps which are classified as city or rural. The permanent force consists of a small number of permanently organized units and amounts to a total of about 4,000 men and officers. It consists of four squadrons, two batteries, one regiment of garrison artillery, five companies of engineers,

and one battalion of infantry. The active militia has a personnel of about 80,000 officers and men. There are also a considerable number of cadet corps and rifle clubs.

The reserve militia is unorganized. In other words, the active militia is divided into two groups, the permanent force and the nonpermanent force. Behind these is the inactive or reserve militia, which is unorganized and includes all men between 18 and 60 years of age not exempted or disqualified by law. It is divided into four classes, which unless the occasions were an extraordinary one, could be called out for service in succession. First come the unmarried men and widowers without children, between 18 and 30; second, unmarried men and widowers without children, between 30 and 45; third, married men and widowers with children, between 18 and 45; fourth, all men between 45 and 60.

It is fair to assume that the Canadian system will undergo very radical changes as a result of the lessons of the present Great War and that some system of general service and thorough preparedness will result.

Chile

Total population of mixed races, Spanish and Indian, about 3,750,000. Military service is universal and compulsory between 18 and 45. Peace strength, 22,000; war strength, 250,000; total

military strength, about 500,000. Annual budget approximately $6,500,000.

The War Department is intrusted with the maintenance of the army and all matters relating to it. The entire republic is divided into four military zones. The people are intensely patriotic. They are proud of their army and navy. About 15,000 men pass through the two services each year. They have strong military instincts and readily conform to discipline. The army is maintained on an exceedingly high basis of efficiency.

The Chilean military system of to-day dates practically from 1895. At the close of the Civil War in 1895 there was a thorough reorganization of the army and navy. The system of training has been German, and a considerable number of German officers have been for years on duty in the Chilean army as instructors in various capacities.

With the reorganization of the army came a reorganization of the Military School and War College and the establishment of the General Staff. This work was accomplished through a commission of some fifteen German officers, who were specially engaged for this purpose. The entire Chilean system was established with that thoroughness and care which characterizes the German military establishment. A number of Chilean officers were sent abroad to serve in

different units of the German army. At the outbreak of the present war, there were quite a number of these in the service, some of them in command of smaller units of that army, and others engaged in special courses at the War College and some of the military technical schools.

About 15,000 men are called to the colors each year, the number depending in a measure upon the appropriation. The period of compulsory service is one year. The recruits join on the first day of May of each year and are discharged on the thirtieth day of April of the following year. The training is intensive, and remarkable results are obtained. The effect of the general training has been most beneficial to the population. Present arrangements are such that existing divisions can be brought to war strength about one week after the declaration of war. Arms and munitions are maintained for a force of 250,000 men.

The general military policy is directed by a Council of National Defense, established in May, 1906. The council consists of the following: President of the Republic, who presides; Chief of the General Staff; Inspector General of the Army; Director General of the Navy; commanders of divisions stationed in Santiago, the capital; director of what is known as the "Maritime" territory of the navy; and the Director of Fortifications.

It should be remembered by those who consider that the question of universal service, normal tactical organization of larger units, reserves of men and materials, etc., are something new and startling on this side of the world that these systems and details have existed in Chile for a considerable number of years. In addition to the expansion of the army to 250,000 men, the war plan contemplates the building up of additional divisions which should be ready in about three or four months after the outbreak of war. With a population of 3,750,000, Chile should be able to put into the field, including all men fit to bear arms, a force of not less than 500,000 men, provided they are as well organized and approximately physically as fit as the Swiss. This number would include men up to fifty years of age.

The Minister of War is at the head of the organization, instruction, and armament. He cannot command the army; this function is exercised by the President, who does and may delegate this authority to a special selection of officers.

The General Staff consists of two classes of officers—officers of the permanent list and officers who are on trial. The duties of the General Staff are those of a general nature, usually assigned to the General Staff of all organized and efficient European armies. It follows closely in its organization the German General Staff. It exercises no administrative functions, although

it necessarily has to study, pass upon, and recommend changes and modifications of administrative methods, sources of supply, etc., in order to prepare intelligently to meet the exigencies of war.

The batteries are gathered in what are known as groups, containing two or three batteries; the regiment two groups, the brigade two to three regiments. The reserves of officers and men are sufficient to permit an expansion of the army to 250,000 men in time of war.

Chile is well provided with military schools and has a thoroughly well-organized system of military instruction, a school for noncommissioned officers, cavalry school, a school of fire, aviation school, fencing school, and a school for music. The functions of the War College is for the instruction of officers of all arms in the higher branches of military science. It comes under the direction of the General Staff, and also has a general supervision of the general military education of officers; in other words, education throughout the military establishment comes under the direct supervision of the War College. Officers are admitted to the War College only after a special inquiry as to their fitness, training, service of troops, etc.

The Military School is a school for the training of the youth of the country who desire to become officers in the army. It is located in

Santiago. It corresponds in its functions to West Point. It differs, however, in that men who have completed their university or higher training, or who have an equivalent education, are required to take only the purely military course, which may be completed in some instances in one year. There is also a regular course, the same as at West Point, which includes the subjects of general education; this is a four-year course. The cadet on graduation is supposed to be prepared for the routine duties of a second lieutenant. They are like the graduates of our own academy, equipped to take up the work of an officer, but not as highly trained or experienced on entry into the service. There is also a school for non-commissioned officers. This is regarded as a very important part of the military educational system. The principle of this school is to supply thoroughly educated and well-equipped non-commissioned officers. The course is approximately one year.

Promotion is made both by selection and seniority, as is the case with all efficient well-regulated armies. Selection is based upon a careful study of the record of the officer. A certain amount of selection gives zest and stimulates ambition to the corps of officers and makes it possible for the capable, hard-working officer to obtain a certain amount of recognition through promotion based on efficiency. The number of men who

become eligible for military service each year is considerably in excess of the number required. The names of all those reaching the military age are posted in the various cities and towns, and from these lists are drawn by lot a sufficient number to meet the military requirements of the year. Those drawn for service report in April and enter upon an intensive, carefully thought out process of instruction. The period is for one year, and a well-developed, well-instructed soldier is turned out in this time. The instruction is practical, the work thorough. In the scheme of instruction ceremonies, etc., are avoided. The object is instruction. The officers realize that their business is to instruct, and they attack their problem in that systematic, energetic way which characterizes the work of their instructors, the officers of the German commission.

There is also a small force of some four to five thousand police who are available in case of emergency.

Seacoast defenses of the republic are under the direction of the navy. This is believed to be an unsound policy, for reasons already pointed out. The fleet should not be embarrassed or in any way directly concerned with the conduct of land forces or land operations. It should be left entirely free to execute its principal mission, which is the destruction of the enemy's fleet.

Colombia

Population, 5,300,000. All able-bodied citizens are liable to military service. Peace strength, about 6,000 men. Budget, unknown.

Cuba

Population, 2,400,000. Public order is maintained by the Rural Guard of approximately 5,000 men, and a small regular army. Cubans have had extensive experience in war incident to the two wars of independence and make good soldiers.

Ecuador

Population, 1,300,000. Budget, unknown.

The regular military establishment consists of approximately 8,000 officers and men. Training for the colors lasts one year. Military service is supposed to be obligatory from 18 to 32 years of age in the army, and from 32 to 45 in a reserve known as the National Guard.

Mexico[1]

Population, 15,000,000. War strength depends largely upon ability to import war material. There are no important munition plants in the country. Service voluntary.

The following statement presents the Mexican

[1] Authority: War Department document 499.

army organization approximately as it was at the time President Diaz resigned. There is no organization higher than the regiment in time of peace. Division organization is reported to have been contemplated, but, as in our own army until very recently, not even a paper organization had been completed.

Four troops of cavalry formed the regiment at full peace strength, and two troops formed a skeletonized regiment. Troops were maintained on a dual footing, skeleton and full peace. A troop skeleton footing had 6 officers and 72 men; and a full peace footing, 8 officers and 105 men. There were fourteen regiments and four skeleton regiments. The total peace strength was 496 officers and 6,822 men. The total war strength was 548 officers and 14,016 men. The full war strength of the troop was 140 men and 5 officers.

The regiment of field artillery contained two battalions, and each battalion two batteries. The peace organization contained two regiments of mountain artillery, one of horse artillery and two of light artillery; total, twenty batteries. Batteries each have six guns, except the horse batteries, which have four. Peace strength approximately from 6 officers and 79 men to 8 officers and 120 men. Mountain batteries had 10 officers and 88 men. The approximate total peace strength was 1,912 officers and men. The plan was to have each mountain artillery regiment

doubled in war time, and the other regiments increased by two additional batteries, which gave a war strength of 3,142 officers and men, and 176 guns. There were, in addition, certain ammunition columns, the strength of which is not known.

The infantry organization is very irregular. The underlying policy was to have the organization such as to permit of the maximum expansion in time of war. A battalion of four companies was the unit. Regiments did not exist in time of peace, but battalions were commanded by colonels with the full regimental staff. In war each battalion expanded into two battalions, giving a two-battalion regiment. The peace strength was thirty-four battalions, four skeleton battalions, two companies each, and two separate companies, known as regional companies. The peace strength of the company was 9 officers and 145 men. The total infantry strength in peace was 1,182 officers and 19,150 men. The war strength of a regiment is supposed to be 47 officers and 1,750 men; the exact number of rifles in a regiment is not known. The war strength of the infantry was 3,100 officers and 54,000 men.

The coast artillery is negligible.

Of technical troops there are one battalion of engineers and other miscellaneous organizations of the regular formation and strength, one company of sanitary troops, and one of train troops. In addition to the regular troops, there

were some twelve regiments of rurales of about 250 men each. The total peace strength of the army was approximately 32,000 men. In theory all citizens of suitable age were liable to military service; in practice this idea was not in force. In case of war the volunteer system would have to be depended on, and probably would have to be replaced by conscription at an early stage of the war.

The Mexicans are excellent marchers, easily subsisted, and require very little in the way of comforts. They are accustomed to life in the open air and to take care of themselves. They are hardy, active, quick-moving troops, but are largely without organization or equipment for the operations of modern war.

The National Military College is at Chapultepec and the course of studies covers rather completely the subjects followed in institutions of this kind. The work has been very much handicapped by the change of government and policies in recent years. There is also an artillery school at Vera Cruz.

Peru

Population, about 5,000,000. Military service, universal and compulsory. Total strength, about 6,500 of all ranks.

Although service is compulsory and obligatory, only a very small number of men are drawn for

service. Three years are required in the active army (four for the cavalry); seven years in the first reserve (six for the cavalry); five in the second, and fifteen years in the National Guard.

The country is divided into five military districts. In addition to the military establishment, there are about 7,000 civil guards and mounted police, who are available as a military asset in case of an emergency.

XVI

Asiatic Armies

Japan [1]

Population, approximately, 52,000,000. Peace strength, 300,000; war strength, 1,250,000. Annual budget, $67,775,000. Total available strength for defense, 7,000,000.

The rapid progress of Japan as a military nation, the secrecy maintained by her concerning reserves, territorial organizations, etc., as well as the system of training Japanese school children in the rudiments of drill and military discipline, make it extremely difficult to make an accurate inventory of the Japanese military resources.

As indicating the constant and rapid progress made by Japan in preparation for war, it may be mentioned that in the period from 1894 to 1904 Japan's fully trained force about doubled. Still more striking is the fact that the trained force which she is able to put into the field to-day is at least double that which she had available at the period of the Russo-Japanese War.

[1] War Department document 499.

Higher Organization: The division is the highest permanent organization in time of peace. There are, however, eleven generals and twenty-two lieutenant generals, besides other officers available for the command and staff of such armies as may be formed in war. There are nineteen divisions organized in peace. In addition, there are certain special organizations outside the Japanese islands proper. In these special organizations the regiment is the highest unit, except that the Korean troops are organized into an infantry brigade. Including the brigade just referred to, there are thirty-nine brigades, four cavalry brigades, and three field-artillery brigades organized in peace. The normal composition of a division is: Two brigades of infantry, one regiment of cavalry, one regiment of field artillery, and the necessary auxiliary troops. Brigades of cavalry and of field artillery appear to be assigned to divisions in time of peace. There are also eleven mountain batteries, which are apportioned among the divisions in peace.

Infantry: There are four companies to the battalion, two battalions to the regiment, two regiments to the brigade. There are eighty regiments, four of which are special troops (already mentioned), with two hundred and forty-seven battalions. Seven of the battalions are not assigned to regiments; of these seven battalions, all except one belong to the special troops. The

peace strength of regiments is 80 officers and 1,734 men. The total peace strength is 6,547 officers and 142,855 men. It is understood that the mobilization plan upon which Japan is working contemplates the organization of a duplicate for each battalion maintained in peace and also a depot for each regiment. This doubling does not apply to the special troops. It is believed that these reserve organizations have not been completely worked out.

It would thus appear that Japan can mobilize 456,000 fully trained infantry, in addition to 18,000 special troops and 76,000 in depots.

Artillery: All Japanese artillery officers are on one list. The heavy artillery is partly mobile and partly coast. It is practically impossible to separate the heavy artillery into classes.

Field Artillery: The German system is in use: six guns to the battery, three batteries to the battalion, two battalions to the regiment. There are twenty-five regiments, with three separate battalions, giving a total of one hundred and sixty-one batteries; two of these batteries are mountain battalions. There are ten horse artillery batteries.

The peace strength of batteries is 5 officers and about 120 men. The regimental strength is 42 officers and 662 men. The total peace strength is 1,114 officers and 17,804 men. The field artillery on mobilization undergoes a simi-

lar expansion to that already noted for the infantry. The completed project would see 322 batteries of 6 guns each available. This would mobilize 275 six-gun batteries. The war strength of batteries is 5 officers and 154 men each. The strength of light ammunition columns is not definitely known, but is probably identical with that of the Germans—4 officers and 188 men.

Heavy Artillery: That this branch furnishes heavy field, siege, and coast artillery is definitely known. It is also known that there are in existence six regiments, with a total of thirty-six companies and twenty-four independent battalions.

Like the field artillery and the infantry, this branch expands in war. Indications point to 126 batteries as the number that would be mobilized under present conditions. The division of these batteries into the several classes cannot be given with any assurance. It is believed, as an approximation, that Japan would endeavor to accompany each 1,000 rifles with one heavy field gun; this, of course, is in addition to the field artillery already noted.

Cavalry: The scarcity of horses in Japan, the great demands on the available supply, and the expense of maintenance of cavalry have combined to retard the development of this arm. There are twenty-seven regiments with a total of ninety-seven squadrons. The peace footing of

squadrons is about 5 officers and 136 men. The total peace footing is 663 officers and 13,922 men.

In war it is supposed each regiment would form a reserve regiment of two squadrons and in addition a depot squadron. The war strength of squadrons is but slightly greater than that in peace. The total war strength in sabers, exclusive of reserve organizations, may be reckoned at 14,550.

Technical Troops: There are nineteen battalions of engineers of three companies each. The peace strength of battalions is 21 officers and 374 men each.

There is also a "communication brigade," consisting of one railway regiment, one telegraph section, and one balloon section. The peace strength of the engineers proper is 399 officers and 13,490 men.

The peace strength of the railway troops is 75 officers and 2,100 men. The strength of the telegraph section is 38 officers and 625 men. The strength of the balloon section is unknown.

Each battalion of engineers forms an extra battalion in war as well as a depot company. The war strength of battalions is about 660 men.

The total war strength, including railway and telegraph troops, is about 32,862 officers and men.

Train: The train troops are organized into battalions of two companies each. On the peace

footing there are nineteen battalions of two companies each; one battalion is assigned to each division. The peace footing of battalions is 17 officers and 596 men. The total peace strength of the train is 303 officers and 17,124 men.

The train expands enormously in war; some authorities state that each battalion in war forms an extra company. The war strength of companies is probably 10 officers and 880 men.

The total war footing is not accurately known. Various authorities indicate that the war strength of the train of the nineteen divisions existing in peace is about 51,000 officers and men.

Sanitary Troops: In 1910 the Japanese army list shows 1,247 sanitary officers. The present strength in sanitary men is not known. As an indication, it may be noted that in 1906 there were 2,202 men with 1,282 officers. As the strength in officers has not materially changed since 1906 it may be assumed that the present strength in men is about 2,200. The war strength is unknown.

Veterinarians: The army list for 1910 shows 229 officers.

Remarks on Troops: Besides the troops above mentioned, there are a number of special organizations, schools, gendarmes, etc. The number of officers of intendance borne on the 1910 army list is 999.

Total Peace Strength: The peace strength is variously estimated. It is certain that it is at least 250,000 men, and it is possibly more.

Total War Strength: As already indicated, there is some difference of opinion as to the extent to which the ultimate plan of mobilization has been developed. Bringing the existing organizations to the war footing, ignoring special troops and reserve organizations, would give a fighting strength of the three arms about as follows: Infantry rifles, 228,000; cavalry sabers, 14,550; field guns (with possibly 228 heavy big field guns in addition), 954.

If we assume that the plans for mobilization have been completed, the above figures for infantry rifles and field guns would be doubled, while the cavalry would be increased by about one-half.

There are at least 1,000,000 fully trained reserves subject to call on mobilization.

Army, 1913: Japan's active army consists of nineteen divisions (two more authorized). It has nineteen reserve divisions. The Japanese General Staff in 1906 worked out a plan to increase the then seventeen active divisions to twenty-five, with a corresponding number of reserve divisions. This plan was to be completed in eleven years. So far but two active divisions and two reserve divisions have been added, and the plan has been temporarily halted.

The strength of the army on a peace footing is 15,500 officers, 220,000 men, 45,000 horses.

When mobilized the army will number, approximately, 400,000 rifles, 17,000 sabers, 1,386 pieces of field artillery, 228 pieces of heavy field artillery, 1,000 pieces of heavy siege artillery, 200,000 horses.

If the proposed plans, checked for the time being, are carried out, Japan in twelve years will be able to put in the field 1,500,000 trained men.

Composition of the Forces: (1) The active army (Gueneki); (2) its reserve (Yobi); (3) the army of reserves, or second reserve (Kobi); (4) the replacement troops, reserves of recruitment (Hoju); (5) the national army (Kokurnin), first and second parts.

Conditions of Service: Service is obligatory upon all males between the ages of 17 and 40. The period of service is regulated as follows:

Gueneki: Three years, save for the infantry where men pass the third year under the status of furlough, and in the train, where the service is but six months.

Yobi: Four years and four months comprising men coming from Gueneki.

Kobi: Ten years comprising men coming from Yobi.

Hoju: Twelve years and four months comprising men of character very good or good, who are in excess of the needs of Gueneki.

Kokurnin: First part, for two years and eight months comprising men coming from Kobi; for seven years and eight months, men coming from Hoju, who have received a little instruction. Second part, comprising all the men from seventeen to forty years not comprised in the preceding categories. Per cent of peace strength to total population, 0.45.

Administration: The Emperor is commander in chief of the army and navy; the determination of their organization and strength depends upon him.

He is assisted by: (1) The Council called Gensu, or the marshals (and admirals); (2) the Superior Council of War; (3) the War Department; (4) the General Staff; (5) the General Inspector of Military Instruction; (6) the Inspector General's Department, and the Imperial Headquarters.

Army Commands: The division is the highest command in peace. Each division except the guard is assigned a district. There are apparently no higher commands formed in peace.

The Division (War Strength): Commanded by a lieutenant general. Headquarters: General Staff, one colonel or lieutenant colonel; chief, one lieutenant colonel or major, assistant chief; two captains, adjutant general's department, five officers (one major, two captains, two lieutenants); one aid-de-camp; one commissioner of

gendarmerie; two officers for escort duty. There are thirty officers classed as noncombatants, who pertain to the supply and medical departments, etc. Two brigades of infantry, each of two regiments; the brigades are commanded by a major general with two staff officers; one regiment of cavalry of three squadrons; one regiment of field artillery; of two groups each of three batteries, each six guns; total, thirty-six guns; one battalion engineers; one pontoon train; one telegraph detachment; two companies litter bearers; eight ammunition columns; four commissary; six field hospitals. Mobile remount herd.

The total division comprises: combatants, 432 officers, 13,652 men, 11,174 rifles, 36 guns. Noncombatants, 191 officers, 4,680 men, 4,831 horses, 1,682 vehicles. Proportion of cavalry and artillery to an infantry division at war strength: for every 1,000 rifles 38 sabers, 3.2 guns.

The Infantry Brigade: Two regiments, commanded by a major general with two staff officers.

The regiment: Headquarters, one colonel, one captain, adjutant; one lieutenant color bearer; one sergeant musician; one corporal armorer; one sergeant nurse; four clerks. Three battalions of four companies each; one machine-gun company. (For train, see battalion organization.) Total strength, 69 officers, 3,067 men. Fighting strength, 2,791 men.

The company (war strength): Commanded by a captain not mounted, three lieutenants; one adjutant (a superior noncommissioned officer, corresponds to a first sergeant). Total, 196. In 1912 the average company had a total strength of 158 on a peace footing.

The machine-gun company: An infantry regiment has a company of six guns; the machine guns will be greatly increased.

The Cavalry Brigade: Outside the divisional cavalry Japan will mobilize four independent brigades of cavalry, each brigade consisting of two regiments of four squadrons each. Total, about 1,160 sabers, with smaller units of different arms of the service.

The regiment: Headquarters, one colonel; one major, second in command; one captain, adjutant; one lieutenant, color bearer; two surgeons; two veterinarians; two accounting officers; one farrier sergeant; one corporal saddler; one artisan armorer; four nurses. A divisional regiment has three squadrons; an independent regiment has four squadrons. The strength of a four-squadron regiment is 596 combatants, 146 noncombatants, 782 horses.

The squadron (war strength): One captain; four lieutenants; one adjutant; one sergeant major; one quartermaster sergeant; six sergeants; six corporals (of whom one is a farrier); five farriers; one nurse. Total of squadron, 145

combatants, 31 noncombatants, 184 horses. The squadron is divided into four platoons.

Field Artillery: The regiment: Each regiment has two groups of three batteries each; each battery has six guns. Total guns each regiment, 36.

The battery (war strength): One captain; four lieutenants; one adjutant; one sergeant major; one farrier sergeant; six sergeants, chiefs of piece; one quartermaster corporal; six corporals. Total combatants, 5 officers, 127 men; noncombatants, 18 men, 128 horses, 6 guns, 6 caissons, 27 vehicles.

Promotion: Partly by selection, partly by seniority, with no fixed proportion between the two methods.

China

Population, approximately 320,000,000. The army's strength, including all organizations under governmental control, varies from 300,000 to 800,000. Many of these troops are irregular organizations, very imperfectly equipped and untrained.

Budget, unknown.

An increase of the modern army was commenced by imperial decree in January, 1905. In October, 1907, a special edict was issued ordering the formation of thirty-six divisions in the various provinces of the empire. These were to be formed, organized, and equipped by 1912. In-

cluding this army is a form of modified conscription. Terms of service, three years with the colors, three years in the first reserve, and four years in the second reserve. The first-reserve troops are given thirty days' training every year; men in the second reserve every other year. The original plan called for divisions of about 10,000 combatants each. In 1909 steps were taken to form a division of Military Guards. Various changes in government have interfered with this plan. There is no sufficiently definite information concerning the present status of the army to warrant a statement.

XVII

European Armies[1]

In considering the statements concerning the strength and organization of the European armies it must be remembered that this was the approximate strength up to the outbreak of the present war.

All the armies of the warring nations have been enormously increased and the full strength in men brought out. This strength for defensive war is estimated as being approximately one-seventh of the total population. For offensive war probably not over one-tenth would be available.

Artillery has been greatly increased in amount and caliber and is being used to an extent never before dreamed of.

The use of machine guns has been enormously increased, indeed the limit upon their use is very largely a matter of the number available and the amount of ammunition. The light and heavy machine guns are as distinct as the light and heavy field artillery. The light gun will probably be used to the extent of one gun for each 10 or

[1] War Department document 499 and other authorities.

12 men. A gun of this type is in effect a giant automatic rifle, although sometimes spoken of as a machine gun. The heavy machine gun is used in the proportion of about 1 to 8 or 10 of the lighter guns and is being used in the present war not only for direct but to a large extent indirect fire to sweep the zones in the rear of the lines and to create a rifle barrage.

Bombing detachments have been added to practically all companies of infantry, as the bomb has become one of the principal features of the attack upon intrenchments.

Aviation Corps have been increased enormously in strength and here again the limit is practically that of the capacity of the nation to turn out the machines and men. Reconnaissance, control of artillery fire, observation and location of troops and the bombing of lines of communication are the principal functions of this arm in land warfare. In naval warfare it has similar uses, and in addition gives promise of effective service against submarines and ships.

In considering the organization and strength of the land forces of the great European military powers, it should be borne in mind that numerous changes and additions were made in these forces preliminary to the outbreak and others since the beginning of the present great war.

Infantry: The basis of infantry organization in European armies is the battalion. The typical

battalion consists of four companies and has a strength on a war footing of from 20 to 25 officers and from 900 to 1,100 men, or about 900 to 1,000 rifles.

Cavalry: The squadron is the unit of organization of foreign cavalry. It numbers from 120 to 150 men. Regiments contain from three to six squadrons, four to five being the general rule. The European squadron corresponds to one of our troops, but is twice as strong as our troops at peace strength, and about 50 per cent stronger than ours at war strength. This organization gives a very flexible and readily handled cavalry regiment, and is as large as a colonel can handle promptly and effectively in mounted action. It is the organization recommended by the board of American officers sent abroad to make a special study of cavalry, with a view to the reorganization of our cavalry.

Field Artillery: The field batteries are generally taken as the unit in field artillery organization. For comparison among great armies, the battalion furnishes a better basis. France and Germany represent the two great field-artillery schools. The principal differences are as follows: The French have a battery of four guns as the firing unit, and assign to it all ammunition which should be available on getting into action. The batteries have 4 to 5 officers and approximately 170 men. The German battery has six guns and

only such ammunition as is needed for immediate service of the piece. The remainder of the ammunition which should be available when going into action is carried in an ammunition battery, which forms a part of the battalion. The number of firing batteries in both systems are three to the battalion, the additional German battery being for ammunition. The German system gives 5 officers and 150 men to the firing battery, and 4 officers and 188 men to the ammunition battery. The result is, the French battalion has 15 officers, 510 men and 12 guns; the German, 19 officers, 638 men and 18 guns. Under the French system, there are more men and officers per gun than under the German system. The French have devoted great attention to rapidity and accuracy of fire. There are also several technical differences in the method of handling material which distinguishes the French school from the German.

Fortress Artillery: Fortress artillery is the artillery used in the permanent land fortifications. There is no exact counterpart in our service. It corresponds rather to the lighter types of coast artillery than to anything else we possess.

Coast Artillery: This is the force maintained in the sea-coast fortifications, which corresponds in a general way to our own coast artillery. It consists of heavy guns of larger caliber, direct

and indirect fire guns and lighter guns for the protection of mine fields. The organization is in some instances partly under naval control, a most unwise policy, as it violates the fundamental principles which should govern sound naval policy, which should be such as to leave the fleet free of all responsibilities for the conditions on shore, and at liberty to meet and destroy the enemy's fleet. Land responsibilities and the temptations of secure ports of refuge have been as fatal to the success of naval operations in the hands of weak commanders as the proximity of great forces has been to mediocre generals.

Sanitary Troops: The proportion of sanitary troops in European armies is small in comparison with that in our own army. On the other hand, the Red Cross and other civil organizations for the handling of sick and wounded, outside the immediate fighting area, are much better developed than in this country.

Reserves: Reserves of trained men (officers and enlisted men) and reserve supplies of material sufficient to bring organizations from peace to war strength and make good the losses during the first months of war, and also sufficient to create new organizations, are maintained in all of the great Continental military countries, and it is upon the completeness and thoroughness of this reserve system that their military effectiveness very largely depends. In addition, there is

an organization of transportation, communications, and other resources of the nation, so that when war comes all of the resources of the country may be made promptly available for offense or defense, as circumstances may require.

Service Conditions: The time and energy of the European soldier is devoted largely to preparing himself for war service. Nearly all officers are engaged in intensive training of troops. Everything is subordinated to the needs of the line, of making it an effective fighting force. The staff lives and has its being to serve the line. The General Staff coordinates the energies of everything pertaining to the military establishment, with a view to obtaining fighting efficiency. Individuals and organizations are judged by their efficiency for war service. Staff corps working for their own aggrandizement are practically unknown in the Continental armies. The General Staff is also charged with the preparation of plans for war even to the most minute detail, and, in the discharge of this duty, requires the fullest cooperation on the part of the supply department. It outlines military policy and determines very largely the means through which results are to be attained. The complicated and involved system of paper work, accounting, returns, guard duty, fatigue, etc., which use up so much of the energy of our army and are so dis-

couraging to our officers, are practically unknown in the great Continental armies. Under the European system, which is one of the highest efficiency, the officers have their men for instruction. The organization turns out with all its men and officers present for duty, excepting the sick. With us, as a rule, not over two-thirds of the organization are present for military instruction (drill) in time of peace.

Austria-Hungary

Population, approximately 52,000,000. Annual appropriation (1913), $111,125,000.

Peace strength, 482,716; war strength, 4,320,000.

The dual monarchy of Austria-Hungary maintains three separate armies supported by the empire, by Austria, and by Hungary, respectively.

These armies are known as the common army, the Austrian (Cisleithane) Landwehr, and the Hungarian Landwehr, respectively. The two Landwehr armies differ, however, from the Landwehr of other countries in that they are maintained with the colors in time of peace. It may also be noted that the common army is known as the first-line, and the two Landwehr armies as the second-line.

Higher Organization: In the common army there are 16 army corps with 33 divisions. There

are 15 divisions in the Landwehr. There are 5 cavalry divisions organized in peace; they are attached to army corps and all belong to the common army.

The common army has 58 brigades of infantry and 19 brigades of cavalry. In the Landwehr there are 30 brigades of infantry and probably 6 of cavalry. There are 16 brigades of field artillery in the common army, organized in peace.

Infantry: The formations of infantry vary, but it may be said that the typical formations are 4 companies to the battalion; 4 battalions to the regiment; 2 regiments to the brigade; 2 brigades to the division. In the common army there are 110 regiments with 467 battalions. In the Landwehr there are 72 regiments with 228 battalions.

The total peace strength is 17,658 officers; 247,981 men.

In war the battalion numbers about 1,000 officers and men, counting about 900 rifles. The typical army corps thus has a war strength of about 28,800 infantry rifles.

Field Artillery: The total peace strength is 2,694 officers; 40,568 men.

It is understood that in war the regiments mobilize a large additional number of batteries, but no definite information is available. The opinion is ventured that the war organization

corresponds, so far as concerns artillery, to that of Germany.

Fortress Artillery: The fortress artillery is divided between coast artillery and the garrisons of land fortresses as distinguished from coast fortifications. It is all part of the common army. The total is 6 regiments with 24 battalions and 92 batteries. The total number of officers and men on a peace footing are 574 and 9,360, respectively.

Cavalry: The typical formations of cavalry are: Six squadrons to the regiment, two regiments to the brigade, two brigades to the division.

There are 19 brigades with 42 regiments and 252 squadrons in the common army, and 6 brigrades with 16 regiments and 101 squadrons in the Landwehr. The peace strength of squadrons in the common army is nominally 5 officers and 171 men; some of the men are, however, detached to form pioneer and other detachments at headquarters.

The strength of squadrons of Landwehr is 5 officers and from 72 to 128 men for the Austrian and 4 officers and from 64 to 100 men for the Hungarian.

Total peace strength, 2,813 officers; 54,361 men. The war strength of squadrons, both armies, is 5 officers and 171 men, counting 150 sabers. Each regiment also forms a reserve

squadron and a depot squadron; cadres exist for these in peace.

Technical Troops: 894 officers, 12,100 men.

Total War Strength: It is impossible to give any definite accurate statements as to Austria's maximum mobilization. The latest estimate of war strength is as follows: Common army 1,360,000 men; Landwehr (Austrian), 240,000 men; Landwehr (Hungarian), 220,000 men; Landsturm, 2,000,000 men; Ersatz reserve, 500,000 men. An approximate total of 4,320,000 men.

Conditions of Service: Service is compulsory and liability extends from the nineteenth to the forty-second year of the citizen's age.

Service is divided into numerous categories. The most important of these are as follows: Common army, three years with the colors, and seven years in the first reserve subject to call for three periods of training of four weeks each; Landwehr, two years with the colors and ten years in the first reserve. During the latter period the men may be recalled for instruction under varying and complex rules.

Peace Strength, 1914: 472,716 men.

Administration: Commander in chief, the Emperor and King.

Military Chancellery, an intermediate organization between the sovereign and the ministers of war:

Minister of War of the Empire, common army;

Minister of War, Cisleithane, Austrian army;

Minister of War, Transleithane, Hungarian army.

General Staff: The Chief of Staff is under the direct orders of the Emperor. However, except in special cases, he reports through the Minister of War.

Organization: The highest organization in time of peace is the corps. There are sixteen army corps.

The Army Corps in Normal War Formation: Headquarters, 1 company and 1 platoon cavalry, escort; 3 divisions infantry, 2 common, 1 Landwehr; 1 regiment artillery, light or howitzer; 1 battalion pioneers, 1 light bridge train; 1 tool column; 1 ammunition park; 1 detachment telegraph and telephone; 1 train squadron; 1 field hospital; 1 subsistence convoy.

The fighting strength of a corps of three divisions is probably 45,000 rifles, 132 guns.

The Division: There are 49 divisions, of which 33 are of the common army, 8 of Austrian Landwehr, 8 of Hungarian Landwehr.

Headquarters, 1 company of infantry, 1 platoon of cavalry, escort; 2 brigades of infantry; 3 squadrons of cavalry; 1 regiment of field artillery; 1 ammunition park; 1 telegraph detachment; 1 subsistence convoy; 1 ambulance com-

pany; 1 train squadron; an effective war strength of about 15,000 rifles, 24 to 36 guns.

Proportion of cavalry and artillery in an infantry division at war strength: for every 1,000 rifles, 30 sabers and 1.6 to 2.4 guns.

The Infantry Brigade: As a rule two regiments form a brigade.

The infantry regiment: A regiment consists of the regimental staff, 4 battalions, and 1 skeleton or depot battalion. A regiment has about 4,000 men; about 3,600 rifles.

The battalion: A battalion consists of 4 companies. It has about 1,000 men.

The company: In 1909 a company of the common army consisted of 4 sections. Peace footing: One captain, one first lieutenant, two second lieutenants, ten noncommissioned officers, and eighty-two men.

The war strength of a company is about 250 men.

Machine guns not known but greatly increased during war.

Cavalry Divisions: Ten cavalry divisions (two Hungarian Landwehrs).

The division: Two brigades of cavalry of 2 regiments each; 1 detachment of machine guns; 1 battalion of horse artillery; 1 ammunition column; 1 train squadron; effective strength 3,600 troopers, 12 guns. Smaller units of the different arms of the service.

The regiment: There are 42 cavalry regiments of the common army, 6 of Austrian Landwehr, and 10 of Hungarian Landwehr. The regiment is commanded by a colonel or lieutenant colonel. Two majors, each commanding 3 squadrons.

Peace strength: Forty-five officers, 1,083 men, 1,021 horses.

The squadron: The peace strength differs. A squadron of a common army consists of 5 officers, 21 noncommissioned officers, 145 men, and 149 government horses. A squadron of the Austrian Landwehr consists of 5 officers, 1 cadet, 9 noncommissioned officers, 63 men, and 60 government horses. A squadron of the Hungarian Landwehr consists of 4 officers; 1 cadet, 7 noncommissioned officers, 57 men, and from 43 to 58 government horses. The war strength is 150 riders.

The Artillery: Common army: Forty-two regiments of light artillery (each regiment consists of 5 batteries of 6 pieces); 14 regiments of light howitzers of 4 batteries each; 8 battalions of horse artillery; 8 battalions of heavy artillery (each battalion of 2 batteries of 2 pieces); 10 regiments of mounted artillery (each regiment has 1 battalion of 4 batteries of light guns, and 1 battalion of 2 batteries of howitzers).

Promotion: Promotion takes place usually by seniority, exceptionally by selection. The num-

ber of promotions by selection must not exceed one-fifth of the vacancies. Officers cannot be proposed for selection when they are in the last quarter of the seniority list. Promotion from the grade of colonel is exclusively by seniority, but officers thus promoted must have been found efficient.

Recruitment of Officers in Time of Peace: Active officers for the Imperial Austro-Hungarian army are recruited from two distinct sources —from the military schools and from the cadet corps. The schools or military academies—for so they might be called—are two in number, one at Neustadt, outside of Vienna, and the other in Vienna itself. The first provides officers for the infantry, cavalry, and pioneers; and the technical academy at Vienna, for artillery and other engineer officers.

The cadet schools are eighteen in number. There are fifteen infantry schools, one cavalry school, one artillery school, and one school for pioneers. Generally speaking, about five-sixths of the infantry and cavalry and about four-sixths of the special arms come from the cadet schools.

Recruitment of Reserve Officers: The reserve officers necessary to complete the units of the common army upon mobilization are provided by two means:

1. Using all officers who are furloughed from the service. Each officer who has finished three

years in the active army is permitted to pass into the reserve, and remain there until 60 years of age, provided he engages to serve in case of war.

2. By the promotion to the grade of lieutenant of former cadets or volunteers who engaged under obligation to become reserve officers after a year's service.

These officers are very numerous, and the needs of mobilization are amply provided for.

Officers of the Landwehr or Honved are supplied as follows:

1. By transfer to the Landwehr (or Honved, according to nationality), upon request, of officers who have served ten years in the army or reserve.

2. By nominating to the rank of second lieutenant young men, able to pass the recruiting requirements, who pass through special schools for instruction of officers of the Landwehr or Honved.

3. By promotions in the Landwehr or Honved to the several grades of officers, made in conformity with regulations governing promotion in the active army.

Military Schools: In addition to the cadet schools before mentioned, the government maintains a war college at Vienna for the education of general staff officers as well as a school for military administration, to which are sent officers

who are serving in the supply services. Courses are also prescribed for intendant officers, superior supply officers, officers charged with purchase of clothing and equipment, subsistence officers and train. There is also maintained at each brigade headquarters a school for cavalry officers. There is a higher artillery school and a school for the technical branches of engineers, both military and civil. There are two telegraph schools, one for cavalry and one for infantry; a school for ordnance officers, a firing school for infantry, three schools for equitation, one of which is for infantry officers; a firing school for artillery, and a separate riding school for the training of drivers and riding instructors in the field artillery.

Belgium

Population, 7,600,000. Peace strength, regular army, about 60,000 men and officers. War strength, field army, 175,000 men, which with men in depots and other troops can be increased to a war strength of 350,000 men. This will require some time. Total resources in men if all were trained, etc., about 1,000,000 to 1,200,000. The budget in 1914 was about $20,000,000. Universal service (recent), but not in full operation at the outbreak of the present war. That is to say, only a limited number of the total men of military age had been trained. Army divided

into regular army, Gendarmerie, and Guard Civique.

Voluntary enlistments are allowed for those who desire to make the army a profession. The period is from five to seven years for those under eighteen and from three to five years for those over eighteen.

Those drawn for service under universal-service law serve for fifteen months in the infantry, garrison artillery, and engineers; for one year and nine months in the field artillery, and for two years in the cavalry. The annual contingent is about 34,000. The service is for eight years in the first line or active army; five years in the second line or reserves. The first-line reservists are liable to call for training for four, six, or eight weeks, according to the army to which they belong. This training generally comes in the second, third, or fourth year of service. The Gendarmerie is a quasi-military force of about 4,000. The Guard Civique amounts to about 46,000 officers and men. This is organized on a military basis and has considerable resources.

Great Britain

The population of Great Britain is approximately 58,000,000 (?), exclusive of India and colonial peoples not of European descent. The peace strength is 453,677, exclusive of territorial,

Australian, Canadian and New Zealand forces, and the native Indian army, including territorials and colonials, possibly 800,000; and including native Indian army, 950,000; but many of these would not be available on a European battle front. With universal training, the white population of the empire should produce a force of 6,750,000 trained men for offense and nine to ten million for defensive war, including reserves; of these, England proper should have about 5,500,000. India, of course, can give an almost unlimited number of untrained men. The strength of the native Indian army is 162,000.

The military forces of Great Britain fall under several categories. The principal of these are: the regular forces and the territorial forces. The regular forces are again divided into British forces, Indian forces, and colonial forces.

Higher Organization: The bulk of the British forces (regular) within the British Isles is organized into six divisions and four cavalry brigades (one cavalry division).

The territorial force is organized as follows: fourteen divisions (similar to those of the regulars), fourteen mounted brigades, fourteen field artillery brigades.

The forces in India, including regular and native, are divided into two armies. These armies contain a total of nine divisions and eight cavalry brigades.

The division in India is smaller than is usually the rule (above 13,000).

Regular Forces—Infantry: The battalion consists of four companies. Regiments exist, but as they are not used in practice they will not be considered here.

The battalion is commanded by a lieutenant colonel, the company by a major or captain.

Four battalions form a brigade, as a rule. There are 3 brigades to the division.

The war strength of the battalion is 29 officers and 955 men, with an additional officer and 90 men left at the immediate base to fill up the first vacancies.

Artillery: The British artillery (all branches) is known as "The Royal Regiment of Artillery." The "regiment" is divided into "The Royal Horse Artillery," "The Royal Field Artillery," and "The Royal Garrison Artillery." The mistake is frequently made of considering the garrison artillery as coast artillery. As a matter of fact, a large portion of "The Royal Garrison Artillery" is field artillery.

In the following sections the artillery has been grouped where it belongs. Even so, it is believed that too much has been assigned the coast artillery.

Regular Field Artillery: The English field artillery, as is the case with their artillery in general, has a peculiar organization.

Batteries are commanded by majors, and contain six guns, except that heavy field-gun batteries have only four.

Batteries are grouped in "brigades" (battalions), commanded by lieutenant colonels. Here again there is an exception, as the heavy-gun batteries are not "brigaded." "Brigades" are grouped under a general officer to form divisional artillery. Brigades are composed of three batteries, except for the horse artillery and for howitzers, in which two batteries form the brigade.

The peace strength of batteries varies according to three schedules, viz.: higher, 5 officers and 170 men; lower, 5 officers and 139 men; Indian, 5 officers and 175 men. There are 6 batteries on the higher establishment, 8 on the lower, and 11 on the Indian. Batteries in colonies other than India are on a special establishment, which is about the same as the Indian.

Combining all the field artillery, including horse, we have its stations and numbers as follows: British Isles, 119 batteries, 19,087 officers and men; colonies (other than India), 9 batteries, 1,383 officers and men; India, 71 batteries, 14,179 officers and men. Total, 199 batteries, 34,649 officers and men.

In addition, there are in England 12,000 special reserves for the field artillery.

The war strength of batteries is as follows: Horse batteries, 5 officers and 203 men; horse

artillery light ammunition column, 4 officers and 214 men; "brigade" of horse artillery (headquarters, 2 batteries and light ammunition column), 17 officers, 1 medical officer, 668 men, 12 guns. In addition, 1 officer and 63 men are left at the immediate base as a first reenforcement.

Field batteries, light, have 5 officers and 193 men. Light ammunition column, 5 officers and 302 men.

The divisional ammunition column carries both artillery and small arms ammunition. It has a total of 19 officers, 1 medical officer, and 809 men. In addition, 1 officer and 79 men are left at the immediate base.

Regular Coast Artillery: As has been stated, this paper considers all of that portion of the "Royal Regiment of Artillery" not definitely known as field or siege artillery to be coast artillery. As a matter fact, as has also been indicated, this is believed to be too great an allowance for the coast artillery. However, the figures are: British Isles, companies 34 and 4 "depots"; colonies (exclusive of India), 26; India, 21.

Regular Cavalry: As a rule, regiments have 3 squadrons; the so-called "Household Cavalry" (3 regiments) have 4 squadrons to the regiment. It is understood that eventually there will be a "depot" for each regiment, but at present there are only 6 such organizations for the entire cav-

alry. The squadron conforms to the troop in the United States in that it is the lowest administrative unit, etc. It counts about 150 sabers in war and is commanded by a major—in this it follows the precedent set by the English field artillery.

There are, as a rule, three regiments to the brigade.

Four brigades in the British Isles are organized in peace, with probably three in India.

The total number of regiments is 31, with a total of 99 squadrons and 6 "depots."

The peace strength of regiments is as follows: Household regiments, 24 officers and 408 men; regiments of the line at home, 23 officers and 673 men; colonies, 23 officers, 569 men; India, 27 officers, 594 men. The apparent reduction on foreign service is due to the fact that a small nucleus of men is left at home. This will not be the case after all regiments are provided with "depots."

The war strength of cavalry is as follows: Squadron, 6 officers and 151 men, of whom probably 145 may be counted as sabers. The regiment has 3 squadrons, with a total strength of 24 officers, 1 medical officer, and 528 men. The strength in sabers of the regiment is about 475. In addition to the above figures, 1 officer and 52 men are left at the immediate base as a first reenforcement.

Regular Technical Troops: Technical duties, which in the United States pertain to the engineers and to the Signal Corps, are performed by the Royal Engineers. The company is the unit of organization, but higher officers than company commanders exist in due proportion.

Conditions of Service, Regular Establishment: Service is voluntary. The enlistment period is usually for twelve years, of which a certain portion is passed with the colors and the remainder in the reserve. Service with the colors is usually three, seven, or eight years, depending on the arm of the service and other conditions.

Territorial Force: As has already been mentioned, the territorial force more nearly corresponds to the organized militia of the United States than does any other foreign force.

Colonial Troops: All of the colonies maintain bodies of native troops. Exact data as to the numbers and distribution among the several arms are lacking. In general, it may be said, however, that such forces are strong in infantry and police and weak in the other arms.

India has a native army of some 162,000 men, a portion of whom could be used outside of India.

The Canadian forces are divided into permanent and active militia.

The authorized strength is 78,350. Actually, the numbers are somewhat below these figures. In addition, there are reserves, under various

names, to the number of 39,346. The law permits conscription both in peace and war.

Australia and New Zealand have compulsory military training. In New Zealand the force amounts to about 30,000 men. In Australia the permanent force is 2,989; citizen soldiers 42,261; with cadets, volunteers, etc., the total force amounts to 181,761.

Peace Strength, October 1, 1913: Regular army, British establishment, 170,722; Indian establishment (British troops in India), 76,528; army reserve, regular reserve, 145,000; special reserve, 61,427; territorial forces, 246,600; territorial force reserve, 1,669; total, including staff, depots, and miscellaneous, 707,466.

The Indian army is not included in the above.

War Strength: It is difficult to estimate the war strength of Great Britain. In doing so, her large colonies of Canada and Australia must be considered, as they have always sent men to the defense of the mother country.

In the war in South Africa, 1899-1902, Great Britain disposed during the entire war of 448,495 men, distributed as follows: Total from home, 337,219; total from India, 18,534; total from colonies, 30,328; raised in South Africa, 52,414; grand total, 448,495.

The population of Great Britain (England, Scotland, Ireland, Wales) is 45,370,530; of Canada, 7,206,643; and of Australia, 4,836,625.

Administration: Commander in chief, the King.

The committee of defense: The prime minister is the presiding officer. Studies questions of defense and military and naval measures necessitated by political conditions.

War Office: The command and the administration of the army is controlled by the War Office, at the head of which is the Secretary of State for War, assisted by his cabinet.

The General Staff: The General Staff, under the direction of the Chief of Staff, is divided into three bureaus. The Chief of Staff acts under the Minister of War. The three bureaus of the General Staff are: (1) Military Operations (2) Director of Staff Duties, (3) Director of Military Training.

Organization: Great Britain is divided into eight military commands, viz: Camp of Aldershot, South, East, North, West, Scotland, Ireland, and London. Aldershot is the station of the expeditionary force. There can be mobilized a force of six infantry divisions, one cavalry division, two brigades of mounted infantry, and the necessary auxiliary troops, of an approximate total of 160,000 men.

The Division: Headquarters, 3 infantry brigades, 1 headquarters divisional artillery, 3 field artillery brigades, 1 field artillery (howitzer) brigade, 1 heavy battery and ammunition column,

1 divisional ammunition column, 1 headquarters divisional engineers, 2 field companies engineers, 1 signal company engineers, 1 cavalry squadron, 1 divisional train, 3 field ambulances. Total strength, 18,073 officers and men, 5,592 horses.

Fighting strength, rifles, 11,676; sabers, 150; guns, 76.

The Infantry Brigade: Headquarters, 4 battalions.

Proportion of cavalry and artillery to an infantry division: For every 1,000 rifles, 12.8 sabers, 6.5 guns.

The battalion: Headquarters, 1 lieutenant colonel, 1 major, 1 adjutant, 1 quartermaster, 1 transport officer (detailed from subalterns), 1 sergeant major, 1 quartermaster sergeant, 1 clerk, 1 sergeant drummer, 1 sergeant cook, 1 transport sergeant, 1 sergeant shoemaker, 11 drivers (first line transport), 6 batmen, 1 pioneer sergeant, 10 pioneers, 1 signaler sergeant, 1 signaler corporal, 15 signaler privates, 16 stretcher bearers, 2 orderlies for medical officer.

Attached: 1 officer, 8 privates, medical corps, 2 armorers, 4 drivers army service corps, train transport, 1 machine gun section, 4 companies.

The machine-gun section: 1 subaltern, 1 sergeant, 1 corporal, 12 privates, 2 drivers (first-line transport), 1 batman, 8 guns or more.

The company (war strength): Commanded by a major (or captain) mounted, 1 captain second in command, 4 subalterns, 1 company sergeant major, 1 company quartermaster sergeant, 8 sergeants, 4 drummers or buglers, 10 corporals, 188 privates, 3 drivers (first-line transport), 6 batmen. Total, 6 officers, 221 other ranks.

The Cavalry Division: One headquarters, 4 cavalry brigades, 1 headquarters cavalry divisional artillery, 2 horse artillery brigades, 1 field squadron, 1 signal squadron, 1 headquarters cavalry divisional army service corps, 4 cavalry field ambulances. Total strength, 9,269 men; 9,815 horses. Fighting strength: 6,269 sabers, 24 guns, 24 machine guns.

The cavalry brigade: Three cavalry regiments and 1 signal troop. Smaller units of the different arms of the service.

The regiment: One lieutenant colonel, 1 major, 1 adjutant, 1 signaling officer, 1 quartermaster, 1 regimental sergeant major, 1 quartermaster sergeant, 1 transport sergeant, 1 clerk, 1 sergeant trumpeter, 1 sergeant cook, 1 signaling sergeant, 1 farrier quartermaster sergeant, 1 saddler sergeant, 1 saddletree maker, 5 signalers, 2 orderlies for medical officer, 7 drivers, 13 batmen. One machine-gun section, 3 squadrons.

There are 31 regiments of regular cavalry, 19 stationed in the United Kingdom, 3 in the colonies, and 9 in India.

The squadron (war strength): One major, 1 captain, 4 subalterns, 1 squadron sergeant major, 1 squadron quartermaster sergeant, 8 sergeants, 1 farrier sergeant, 1 shoeing smith corporal, 3 shoeing smiths, 1 saddler, 2 trumpeters, 8 corporals, 104 privates, 3 signalers, 6 drivers, 12 batmen. Total: 6 officers, 151 other ranks, 153 riding horses, 2 pack, 12 draft.

Field Artillery: The brigade: Headquarters, 23 officers, 772 men, 748 horses. It consists of 3 batteries, each of six 18-pounder quick-firing guns.

The field artillery howitzer brigade consists of 3 batteries, each of six 4.5-inch quick-firing howitzers, 22 officers, 755 men, 697 horses.

The heavy artillery battery and ammunition column consists of four 60-pounder breech-loading guns, 6 officers, 192 men, 144 horses.

The battery: A horse artillery battery, including ammunition column, has six 13-pounder quick-firing guns, and consists of 9 officers and 330 men. A field artillery battery has six 18-pounder quick-firing guns, and consists of 5 officers, 193 men, and 172 horses.

Promotion: By seniority in the corps up to and including the grade of major; by selection above the grade of major.

Recruitment of Officers in Time of Peace: The commissions in the regular army are given to the following persons:

A commission as second lieutenant in the cavalry or infantry may be given—

To a cadet who has passed through a course of instruction at the Royal Military College, Sandhurst, or to a cadet of the Royal Military College, Kingston, Canada;

To an officer of the special reserve of officers, militia, or territorial force, to an officer of the local military forces of the colonies, or to a second lieutenant or a lieutenant of the Royal Malta Artillery;

To a candidate from a university;

To a warrant officer or noncommissioned officer;

A commission as second lieutenant in the Royal Artillery may be given—

To a cadet who has passed through a course of instruction at the Royal Military College, Woolwich, or to a cadet of the Royal Military College, Kingston, Canada;

To an artillery officer of the special reserve of officers, militia, or territorial force;

To an officer of the local military forces of the colonies;

To a candidate from a university;

To a warrant or noncommissioned officer.

A commission as second lieutenant in the Royal Engineers may be given—

To a cadet who has passed through a course of instruction at the Royal Military Academy,

Woolwich, or to a cadet of the Royal Military College, Kingston, Canada;

To a warrant or noncommissioned officer.

A commission as second lieutenant in the army service corps may be given—

To a qualified officer of the regular army, of the Royal Marines, with not less than one year's commissioned service;

To a cadet who has passed through a course of instruction at the Royal Military College, Sandhurst, or to a cadet of the Royal Military College, Kingston, Canada;

To an officer of the special reserve of officers, militia, or territorial force;

To an officer of the local military forces of the colonies;

To a candidate from a university.

By open competition—

To a warrant or noncommissioned officer.

Before final appointment to the Army Reserve Corps, all candidates shall be required to pass a probationary period of one year from the date of joining. When it is desirable in the interests of the service, the probationary period may be terminated earlier.

A commission as second lieutenant on the unattached list of candidates for appointment to the Indian army may be given to a cadet who has passed through a course of instruction at the Royal Military College, Sandhurst, or to a cadet

of the Royal Military College, Kingston, Canada, or to a duly qualified candidate from a university.

A commission as quartermaster or riding master may be given to an officer, a warrant officer, or a noncommissioned officer, not over 40 years of age.

The above limit of age may be extended in the following cases:

(a) If promoted for service in the field.

(b) If selected for an extra regimental appointment in the army, not being a departmental appointment, or if promoted before attaining the age of 40 to the rank of quartermaster corporal major, or quartermaster sergeant, or to an appointment which carries with it the rank of warrant officer; in which case the limit of age may be extended to 45.

Recruitment of Reserve Officers: An officer who has retired from the regular forces on retired pay, or with a gratuity, shall be a member of the reserve of officers so long as he is liable to be recalled to army service under certain age limitations; until 50 if a lieutenant or captain; until 56 if a quartermaster, major, lieutenant colonel, or colonel; and until 67 if a general officer.

A commission in the reserve of officers may be granted to—(a) the regular forces; (b) the special reserve of officers; (c) the auxiliary

forces; or (d) the Indian military forces, with the exception of those who entered the Indian army subsequent to the 8th of January, 1892.

Military Schools: The following schools are maintained by the Government: The Royal Staff College, for the education of general staff officers; Royal Military Academy; Royal Military College; Ordnance College; Cavalry School; Camel Corps School; School of Gunnery; School of Military Engineering; Central Flying School; School of Musketry; Schools of Electric Lighting; Army Signal School; A. S. C. Training Establishment; Royal Army War College; Army Veterinary School; Royal Military School of Music; Duke of York's Royal Military School; Queen Victoria School.

Methods of Entering the Regular Army—Royal Military College, Sandhurst: There are two methods of obtaining admission to the Royal Military College:

1. By successful competition at an army entrance examination.

(a) The following enter without competition, provided they qualify in the obligatory subjects at an army entrance examination: King's Cadets; Honorary King's Cadets (10 annually); King's Indian Cadets (20 annually); Honorary King's Indian Cadets (3 annually); Pages of Honor.

Nomination to Cadetship by the Army Council: Conditions: A certain number of suitable candidates, recommended by the headmasters of schools organized for the purpose, are nominated to cadetships by the Army Council each half year.

Prize Cadetships: A certain number of prize cadetships are awarded to successful competitors (other than candidates for commissions in the West India Regiment) in order of merit at each half-yearly army entrance examination. Emoluments varying in value up to a maximum of 255 may be attached to a prize cadetship.

Royal Military Academy, Woolwich: Method of entry: Admission to the Royal Military Academy can be gained only by successful competition at an army entrance examination.

Army Entrance Examination: General outline of army entrance examination: Same as for the Royal Military College.

Certificates required: Same as for the Royal Military College.

Royal Military College, Kingston, Canada: General qualifications: The college has a wider scope than the English military colleges, as, besides military subjects, it teaches civil engineering, surveying, etc.

Seven commissions in his Majesty's regular army are granted annually to the students, viz: Royal Engineers, 1; Royal Artillery, 1; Cavalry,

1; Infantry, 1; Indian army, 1; Army Service Corps, 2.

Military Forces of the Self-Governing Dominions and Crown Colonies: General qualifications: A certain number of commissions are granted each half year to candidates from the self-governing dominions and Crown colonies.

From the Ranks: General qualifications: A candidate for a commission from the ranks—

(1) Must be specially recommended by his commanding officer;

(2) Must not be of lower rank than corporal;

(3) Must have two years' service;

(4) Must have a first-class certificate of education;

(5) Must have a clear regimental conduct sheet;

(6) Must be unmarried;

(7) Must be under 26 years of age.

Australian System of Universal Military Training[1]

Population, 4,500,000. Possible first-line and reserve when universal training is fully developed, 600,000.

In the Commonwealth of Australia manhood suffrage carries with it a manhood obligation for service; hand in hand with the benefits and privi-

[1] Much of the data in this article is taken from the report of Lieutenant Colonel E. N. Johnston, C. E.

leges of citizenship go its obligations in peace as well as war.

Two-fifths of the continent of Australia lies in the tropic zone and the remaining three-fifths within the temperate zone. Including the island of Tasmania, the area is a trifle greater than that of the continental United States, excluding Alaska. The density of the population is about one and a half persons per square mile as against about 30 for the United States. The total population is a little over four and a half million. The spirit of the people is intensely democratic and the government is largely controlled by the labor element, the working people. Large fortunes are comparatively few. The general condition of the people is very good. While the number of large fortunes is limited, the people as a whole are well-to-do. The population is grouped largely in the state capitals at Melbourne, Sydney, Brisbane, Adelaide, and Perth. The colony is remote from the mother country and exposed to attack, especially from the Pacific powers. Until recently there was no well-thought-out, well-organized plan for national defense. In 1911 the Australian Minister of Defense stated:

> Australians are a peaceful business people who do not want war; but can we get others to think the same? There are nations not decadent who have defeated some of the so-called great powers of the world. History

teaches that every country that becomes a conqueror grows land-hungry and ambitious, and so Australia must prepare. Having decided this, we must have the best system of defense, the best training it is possible to get. . . . As regards the cost of the scheme, this system of national insurance is but a mere bagatelle compared with the loss that would be caused by an aggressive cruiser coming to these shores. And further, the horrors of war cannot be counted in pounds, shillings and pence. If we are going to have a defense scheme worth having, we must have the best, and be prepared to pay for it. . . . Organization in business, or in any other sphere of human activity, is the secret of success. In this defense scheme we have a means of organizing the nation.

This declaration has been the keynote of Australian preparation. The principles enunciated are sound and are such that we ourselves could well heed them.

In the same year the quartermaster general of the Australian forces made a statement which, in view of recent events, seems singularly prophetic:

At present there are no clouds on the country's horizon, but, on the other hand, there are many, and not fools either, who do believe war likely. Whether war is likely or not is not the question, however; it is whether war is possible, and what war, and what might be the result to Australia. . . . Nations apparently fight very often for but small excuses, but there are underlying reasons always that are not so apparent. The desire of larger territory, of increased trade, . . . even the barefaced desire of the strong to impose his will upon the weak; these and many others decide the rulers of a nation to undertake a war. The superficial cause, after the secret decision is taken, may be so

trivial a matter as the arrest of a fellow citizen in the threatened country, an extravagant and impossible demand for a humiliating indemnity, the consequent refusal, and an act of war. . . . That is why we want an army. We do not want war, and keeping an army fit for defense is the best preventive.

In order to have any adequate system of defense it is obviously necessary to adopt a system under which all physically and mentally fit men of suitable age should be liable to military service, a system under which the list of exemptions should be few and the requirements of reasonably thorough training rigidly enforced, a system which embodied the principles which we have so woefully neglected; namely, within a democracy each citizen must share to the limit of his physical and mental capacity the burdens and responsibilities as well as the benefits of citizenship. In view of the present great world war the Australian system was taken up too late to insure the fullest measure of military preparedness. It had, however, been in operation long enough to have implanted the general principle of universal obligation. Undoubtedly it was of the greatest value in building up the first portion of the Australian contingent now engaged in the present war. Australia has realized that democracy can only live and have adequate defense through a system which places upon all its citizens the obligation to serve in time of war.

Australian Defense Act, 1903-12: The defense force provided under the Defense Act is divided into two classes, the permanent force and the citizen force. The former are enlisted for a definite term and are limited to staff corps, medical, veterinarian, ordnance, army service, engineers of various classes, and garrison, and fortress artillery. The citizen force is again divided into two classes, active and reserve. The active force includes that portion of the citizenry enrolled in the militia; the reserve force, those undergoing compulsory training and officers on the unattached list. The reserve force includes those on the officers' reserve list, members of rifle clubs, and all male inhabitants of Australia between the ages of 18 and 60 who are British subjects, who have resided in Australia for six months or more, and are not included in the active force.

The Australian system is governed by provisions of law enacted by the Parliament of the Commonwealth as embodied in the various acts passed in the period from 1903 to 1912 which are commonly spoken of as defense acts. Prior to 1910 these acts required compulsory training only of those who were less than 20 years of age. Lord Kitchener visited Australia in 1910 and recognized the need of a more thorough organization as the means for defense and advised that universal training should be extended

to include men 26 years of age, and the Australian Parliament, after considerable discussion, adopted this suggestion.

The Governor General of the Commonwealth was authorized and empowered to constitute a council of defense and a military board known as the Board of Administration. In time of war he is empowered to call out the citizen forces for active service; but, as illustrated by the defense idea which stands back of this military system, we find the following limitation: "The members of the forces are not under obligation to serve beyond the limits of the Commonwealth except as volunteers." In other words, there was nothing in their obligation which could compel service beyond the sea unless they went as volunteers.

All men between the ages of 18 and 60 are liable to service in time of war as members of the citizen forces, and the Governor General can call upon all such persons to enlist and serve. The exemption list is rather small and includes persons physically and mentally unfit, officers and members of Parliament, clergymen, priests, judges of courts, members of the police, members of the public service, such as wardens, men employed in prisons and the lighthouse service and in governmental administration of certain classes. The noncombatant list includes doctors, nurses, and those not substantially of European

descent. There is also an exemption for those whose religious beliefs do not permit them to bear arms.

In 1913 there were in Australia about 200,000 men between the ages of 14 and 18 and something over 300,000 between the ages of 18 and 25. These ages correspond to those of the Senior Cadets (14 to 18) and those of the citizen soldiers (18 to 26). This list also includes those who are physically unfit, probably about 50 or 60 per cent, so that the total available from these two classes for first-line service would be roughly speaking about 50,000 or 175,000 men. In addition, there were as a possible available force in time of war men from 26 to 60, perhaps 450,000 fit for active (first and second line) service.

The system of training was through the establishment of training centers, each center to have a population of at least 2,000. The system which was finally adopted became effective on January 1, 1911, and was designed to create when in full operation 93 battalions of foot troops, 28 regiments of light horse cavalry, and 56 batteries of field artillery. Military service was rightly looked upon as highly honorable duty, as is indicated by the fact that no person is permitted to serve in the defense force who has been convicted of any disgraceful or infamous crime or who is a notoriously bad character.

All those who are liable for service, beginning

with the junior cadets, are required to register themselves or be registered by parents or guardians during the first two months of the year in which they reach the age of twelve. The government has made thorough arrangements so that registration papers can be obtained at any post office, and when filled in can be sent either to the area officer (the officer designated as in charge of the training in the area) or to the postmaster. Failure to comply with the regulations with reference to registration is punishable by a fine not to exceed $50. Any one who evades personal service is liable to a penalty not to exceed $500. The law also prohibits employers from preventing or attempting to prevent any employees from serving. The words are in effect:

"No employer shall in any way penalize or prejudice in his employment . . . any employee for rendering or being liable to render such personal service, . . . either by reducing his wages or dismissing him from his employment or in any other manner. Provided, that this section shall not be construed to require an employer to pay an employee for any time when he is absent from employment for the purpose of training. Penalty: One hundred pounds."

Organization: The military forces of Australia are organized upon a territorial basis. Each area furnishes a prescribed proportion of fighting

units. Australia is divided into military districts; these in turn are divided into brigade areas, and these into battalion areas; and the battalion areas again into two or three training areas as the case may be. The original number of districts was six (this may have been changed incident to the conditions growing out of the present war). The number of battalion areas was ninety-three. In each training area there are probably an average of 350 to 500 trained soldiers, from 130 to 150 recruits for the citizen forces, and from 350 to 600 senior cadets. Much importance is attached to the territorial basis of organization. The organization plan contemplated the formation of divisional areas, each to furnish three brigades of infantry, three field artillery brigades, and three divisions of troops, as well as three portions of light horse cavalry, etc.

In assigning men to organizations an intelligent, well-thought-out plan has been adopted of assigning men to the arms where their previous training would be of the most advantage. Men who have been residing in the country districts and who are familiar with horses are assigned to the mounted arm. Men from the cities and in occupations not bringing them in contact with horses are assigned to the infantry, and men of special training in certain lines of supply to the various supply departments. In other words, there was a well-thought-out plan to so dispose

the available military assets as to *render them of the greatest possible value.*

Training Areas and Area Officers: The original system called for six military districts. These were divided into brigade areas, and these again were each divided into four battalion areas, and these into two or three training areas. Each subdivision of a battalion area (known as a training area) was in charge of an officer, usually not above the rank of captain, detached from his organization and assigned to the duty of conducting the training of those properly coming under his supervision within that area. The original plan contemplated that eventually area officers should be graduates of the Australian Royal Military College. The general duties of an area officer included supervision of the training of troops, supervision of administrative work, supervision of methods in force at schools, duty with troops, supervision of registration, etc. He was also charged with compiling, much as in our military information service, all possible information concerning the area in which he was stationed.

Duration of Training: Men actually serving in the citizen forces, i. e., all those between the ages of 18 and 26, are required to have 16 whole-day drills each year. Eight of these are to be in camps of continuous training. This is a general rule. Those assigned to the artillery and en-

gineers are required to have 25 full days' instruction or their equivalent, of which at least 17 must be in a camp of continuous training. A whole-day drill means six hours; half-day, three hours; night drill, one and one half hours. Whole-day drills in camp include the whole twenty-four hours.

Extra Territorial Units: There are some units organized in schools which do not form a part of the war organization. The members of these organizations, however, as soon as they leave the institution are assigned to units in the area in which they reside.

Rating: At the end of the year's training each man under training is classed as efficient or non-efficient. Those who are rated as nonefficient through their own fault, that is to say, failure to attend for the prescribed period or failure to attain the required standard, are required to train for an additional period, during which they are classed as nonefficients. No man is classed as efficient unless he has attended the statutory exercises required or fulfilled such other equivalent as had been required. In addition to the prescribed work, much voluntary work is done by those who desire to prepare themselves for promotion or who desire to secure a leave of absence from certain prescribed camps.

When the man under training reaches the age of 26 years he passes into the reserve and is ex-

cused from regular training. Here we have well illustrated a system under which men acquired their military training during the period of their physical best and minimum dependent and business responsibility. Those who have not attained the required standard are compelled to continue for as many additional years as may be necessary to bring them up to the required point of efficiency.

Men under training are subject not only to fine but to confinement in the custody of the authorities in case of serious breaches of discipline, such as refusal to train, etc.

The physical examination includes not only the general physical examination required in all modern armies but also goes into the question of descent. All men in training must be of substantially European descent.

In case of change of residence incident to business or professional calling, his record and a full statement concerning the man is transferred to the new district and he is transferred to the arm of the service in which he has been trained, serving in that district.

Appointment of Noncommissioned Officers and Officers: Promotion to the grades of officer and noncommissioned officer are made from those who have served in the ranks. They are usually made as the result of competitive examination, not necessarily a written examination but a com-

petition based upon all-around efficiency. All promotions are made from the grade next below. The examinations are, as far as possible, practical in character. Great stress is laid here, as in the European armies, upon a man's capacity to actually do the kind of work as far as it is possible in practical and field exercises that he will be called upon to do in time of war. There is also a careful study made of the whole question of army administration, supply, etc. The state aids officers preparing for examination by furnishing the necessary books free of charge. Up to the grade of captain the examination is almost entirely practical. For promotion to the rank of major and higher, two-thirds of the examination is practical in the form of work such as would be required in war. This counts two-thirds of the total required. A man must have served two and one-half years in the grade of lieutenant to be eligible to the grade of captain, and a captain must have had at least one and one-half years in that grade before he can be promoted to the grade of major.

The maximum term for which officers are permitted to serve in each rank is as follows: Lieutenant, 5 years; captain, 4 years; major, 3 years; lieutenant colonel, 3 years. The pay and allowances are liberal. For each of the entire days of training required each officer receives pay at the rate of from $3.60 per day for lieutenant to

$10.80 for colonel or brigadier. The men in the ranks receive pay at the rate of 72 cents a day for recruits up to $2.88 per day for brigade sergeant major. Increased pay is given certain specialists in field and garrison artillery. This is small, amounting to about $5 per annum.

Clothing: Articles of clothing are issued free to all members of the force, including officers. Only such things are issued as are absolutely necessary. They are strong and well-made, serviceable, but simple in type.

Competitions: Competitions are largely encouraged to build up esprit and they are recognized through the award of badges and medals.

Discipline: A serious effort has been made in Australia to enforce discipline with as little punishment as possible and to impress upon all those serving the idea that they are serving as a patriotic duty, a duty each and every man should perform alike for his country. A very serious effort has been made to attain high moral standards. It is a military offense for any member of the military force while on duty to use blasphemous language, to speak or act indecently, or to engage in immoral conversation; and for this purpose all men are considered on duty when in uniform. Intoxicating liquors are not allowed to be sold or supplied at any place during training, nor can cigarettes or materials for making them be sold in camp, and no member of the

citizen force is permitted to have them while on duty.

Cadets—Junior Cadets: The training of the Junior Cadets begins July 1 of the year in which the cadet becomes 12 years of age. It runs for two years. All boys receive a careful physical examination, and those who are reported in any way unfitted are eliminated. This selection means probably, if the Australian boy measures up physically to the American boy, that about 50 per cent are physically unfit for military service.

Period of Training: The period of training is for 120 days each year and includes physical training, which is carried out as a part of the school work and must be not less than fifteen minutes each day. The exercises are progressive and are increased in number and difficulty from year to year. They are as follows:

1. Physical training and calisthenics.

2. Marching, principally infantry squad drill.

3. Shooting with subcaliber rifle. The boy is taught to load and fire a rifle and is given elementary training in the basic principles of marksmanship and encouraged to become proficient in the use of the rifle.

4. He is also taught to swim. All cadets are taught to swim before the completion of their junior period. Swimming efficiency is demonstrated by practical tests.

5. Organized games are required for the de-

velopment of endurance under conditions not too severe.

6. First aid to the injured. This instruction includes elementary anatomical work, application of bandages and first aid treatment of sprains, minor dislocations, and drowning; in short, work usually embraced under first-aid teaching but taught by such methods as could be understood and put into practical application by boys from 12 to 14.

The training is directly supervised by masters of the schools and is under the general supervision of the area officer. Special instructors for physical training are also appointed.

There are organizations in Australia, as in our own country, such as Boy Scouts, Boys' Brigades, etc. Membership in these organizations does not exempt them from training for the citizen forces.

Senior Cadets: The boy begins his work with the Senior Cadets on reaching 14 years and continues until he is 18. In the Senior Cadet organizations we find purely military training more emphasized. Cadets are organized in companies and battalions under appropriate officers. The companies are organized with one captain, two lieutenants, and the necessary number of noncommissioned officers and 106 privates, approximately 120 to the company. When there are not enough cadets in any particular training

area to form one company, as is the case in some remote rural districts, they are organized as a detachment. Senior Cadet detachments are also authorized in educational institutions if there are a sufficient number of pupils to make such organization feasible. The cadets each year are required to take four whole-day drills, twelve half-day drills, and twenty-four night drills. A whole-day drill is four hours; half-day drill two hours; night drill at least one hour. The officer in charge of the instruction is authorized to vary somewhat the number and length of the drills. In some places it may be desirable, because of the occupation of those belonging to the force, to have more nightwork and for others to have altogether daywork. They must all receive at least 64 hours of training each year.

When the young man enters the citizen force proper, the periods already in effect for drill are lengthened. The Senior Cadet can gain credit, so to speak, by doing certain voluntary work. This is frequently done in order to aid them in advancement or to secure exemption from work during certain periods of the year.

The Senior Cadets, like citizen soldiers, are rated as efficient or nonefficient. The nonefficient loses credit for the work of that year and is required to do extra training.

The officers of the Senior Cadets are selected

with especial care as to their qualifications and general suitability for the work. The Senior Cadet training includes the following features: calisthenics; physical training; drill with and without arms; school of the squad and company; signaling; care of arms; target practice; instruction in rifle shooting. Each Senior Cadet is allowed 150 rounds of ammunition per year. Many purchase additional ammunition in order to acquire special proficiency in rifle shooting.

The general laws with respect to evasion or attempt to evade service and attempts on the part of employers to prevent service apply to the Senior Cadets as to the members of the citizen force.

Officers and noncommissioned officers are selected on the basis of merit. The examination is largely practical, as in the case of the citizen soldier.

In fact, it may be said the training throughout in Australia is based largely upon ability to obtain results in practical work.

The discipline in the Senior Cadet organizations is the same as in those of citizen soldiers, with the same prohibitions as to cigarettes, liquors, etc.

Uniform and equipment are issued free of cost, are simple in character and serviceable. There is nothing unnecessary, but there is everything that is needed.

Staff, Australian Forces: The duties of the administrative and instructional staff are indicated by their names. The division is based upon that followed in most military establishments and will not be gone into in detail.

Military College: Lord Kitchener was very much impressed with the necessity of the establishment of military instruction on a sound basis, and with this end in view urged the establishment of a military college. He had been greatly impressed with West Point; and it is understood that prior to the establishment of the college a commission of Australian officers visited West Point with a view to studying that institution. The Royal Military College at Duntroon commenced with 1916 to graduate each year some thirty men, who will receive commissions in the permanent force.

The object of the college is the preparation of men for the duties of officers in the various branches of the Australian military establishment. It is open only to those who intend to make the profession of arms their career. Graduates are eligible for appointment as lieutenants. Cadetships are allotted to the states of the Commonwealth on the basis of population. Cadets are maintained by the state. The course is four years and includes subjects of general education as well as the basic principles of the military art. About six weeks of each year are spent in camp.

Musketry is taught at the Radwick Musketry School. Musketry classes are also conducted in each district. At Sydney a school for gunnery has been established for the instruction of officers and noncommissioned officers of the permanent and militia garrison artillery. Field artillery instruction is conducted in connection with the practice camps in various portions of the Commonwealth.

The Minister of State for Defense is responsible to the Parliament for both the navy and the army of the Commonwealth. He is advised in matters of policy by a council for defense, of which he is president. It consists of two naval and two military officers, a treasurer and secretary.

The military affairs of Australia are administered by a military board, which consists of the Minister of State for Defense, the Chief of the General Staff, the Adjutant General, the Quartermaster General, the Chief of Ordnance, a finance member and a secretary.

The Australian military establishment will increase in strength from year to year until the new law is in full effect. If it is as fully developed and systematically worked out as is the Swiss system, Australia should be able to put into the field about 600,000 effectives, of whom 450,000 should be first-line troops, the others corresponding to the Swiss second and third line. The estab-

lishment will require great mobility; but as there is a large supply of horses in the country, of which probably about half a million are fit for military service, there would be no difficulty in providing large numbers of animals for the cavalry and mounted infantry if desired. The entire establishment is simple but effective. Great attention is paid to avoiding unnecessary expense.

Most of the drill is done out of doors. As in most English-speaking countries, there was at first considerable opposition to a system which involved military training. But, fortunately for the Commonwealth and for the Empire, this has been overcome to the extent of establishing a system prior to the outbreak of the present world's war. It is safe to say that this war has demonstrated the absolute necessity of universal service, and that the system which Australia has taken up will be amplified and perfected.

New Zealand[1]

Population: 1,150,000. Territorial force: about 30,000 strong, organized in field and coast defense units.

Peace and war establishment: approximately the same.

Total war strength of New Zealand for defensive purposes, probably about 175,000.

[1] Statesman's Year Book.

Service universal and obligatory, following closely the Australian lines.

Bulgaria

Population, 4,800,000. Peace strength, 60,000; field army, 280,000, plus line of communication troops, etc. Total strength, about 675,000. Budget, $8,400,000 (?). Military service universal (Mohammedans exempted).

Organization follows in a general way the German lines. The men are particularly hardy and make excellent soldiers. Service is universal and compulsory with the exception of Mohammedans, who are exempted but have to pay an exemption tax. Service commences at the age of 20 and terminates at 46 with liability for service after that age in case of special conditions. The service is two years in the infantry, three years in the other arms. Reserve service is eighteen years in the infantry, sixteen years in the other arms. Reservists are liable to be called out annually for three weeks' training. After completing his reservist service, the Bulgarian soldier passes to the territorial army. In this he serves four years with the infantry, five years for all other arms. On the termination of these periods, men of all arms serve two years in the second ban of the territorial army, thus making a total period of twenty-six years of service.

European Armies

Denmark

Population, 2,850,000. The age of universal service with some exemptions is 21 to 37. Peace strength, permanent, 13,500; peace strength, including all troops under training, recruits, etc., 50,000 to 60,000. War strength, 120,000.

Total resource for defensive war, about 400,000. Budget, $5,300,000.

Eight years are spent in active army, and eight with the reserves. Eight years in second line, and further service under conditions calling for use of entire military strength. The people are hardy. Organization follows the general European type. Recruits on joining receive 165 days' training for infantry; 280 for field artillery; 1 year for garrison artillery; 200 days in the cavalry.

France[1]

Population, approximately 40,000,000. Peace strength, 818,532; war strength, 3,878,000. Total men available for defensive war about 6,000,000.

The French army, known as the "Metropolitan Army," is divided between France and Algiers. In time of peace, there are twenty army corps and one colonial army corps. Army corps in peace usually have two divisions; in war and in exceptional cases three. The strength of the

[1] War Department document 499 and other authorities.

corps varies considerably. There are 47 divisions of infantry, 92 brigades and 21 field artillery brigades distributed among 21 army corps. This is the peace footing. The army on peace footing has 10 cavalry divisions. As a rule, the division contains from 20 to 24 squadrons and 2 batteries of horse artillery. There are 2 cavalry divisions of 30 squadrons each. There is a total of 38 cavalry brigades.

War Strength, 1914: According to Veltze, about 5,500,000 men have had military training. This for a war of defense will be practically the resources in men at the time of the outbreak of war. The war strength is 3,878,000; annual appropriations, peace footing, approximately $197,000,000. The strength of the French army is 818,532 exclusive of colonial troops, but including Gendarmes and Republican Guards. Officers, 29,209; men, 735,088. Of these 26,368 officers and 709,796 men are stationed in France. In addition to these, there were 2,083 officers and 23,600 men of the colonial force stationed in France, or a total in France of 28,451 officers and 733,369 men.

Infantry: Four companies to a battalion, sometimes, exceptionally, from 3 to 6. Regiments have 3 battalions as a rule; occasionally 4. There are 173 regiments in the Metropolitan Army.

There is a total of 657 battalions stationed in

France. An infantry company in peace numbers 3 officers and 125 men; it is practically doubled in war, when the number of officers is increased to 5. Peace strength, 386,338; war strength, 2,600,000.

Field Artillery: There are 3 batteries to the battalion, 4 battalions to the regiment (war) and 3 regiments to the brigade. The artillery brigade is divided 1 regiment to the corps, and 1 to each division composing the corps. In 64 regiments there are 5 separate battalions with a total of 679 batteries and in addition, 3 regiments of colonial artillery each of 36 batteries stationed in France. Batteries have 4 guns each. The strength of batteries on peace footing is from 3 officers and 90 men to 3 officers and 160 men. The total field artillery peace strength is 76,500 officers and men. Approximately 68,500 of these are in France; the remainder in the colonial army. Mobilization will probably result in there being an expansion which will give 144 guns per army corps. The war strength of batteries is 4 officers (sometimes 5) and 170 men; mountain batteries, 200 men. Mountain batteries on a war footing have 6 guns. Peace strength, 76,420; war strength, 300,000 (?).

Foot Artillery: Foot artillery is divided into 2 classes, namely, coast and fortress. The total number of batteries is 50. Strength, men and officers, 7,246.

Cavalry: Cavalry is organized in 5 squadrons to a regiment, 2 regiments to a brigade, and 2 brigades to a division. There are 79 regiments in France, 10 in Africa, with some miscellaneous organizations—a total of 91. Peace strength, squadron, 5 officers and 150 men (141 sabers); war strength, 5 officers and 160 men (150 sabers). One squadron in each regiment is left behind as a depot squadron. Peace strength of cavalry, 81,500, of which 72,000 are in France; war strength, 330,000.

Technical Troops: All technical troops are known as engineers. They number 18,200. This organization includes signal troops. Peace strength of companies, 4 officers and 160 men; war strength 4 officers and 252 men. The total force approximates 18,000—16,000 in France and 2,000 in Africa.

Aviation Corps: The number of aviation troops is unknown, but is very large.

General Remarks: It is safe to assume that the aviation force in all the large continental armies contains several thousand officers and many thousand men.

In connection with the remarks on artillery, it should be borne in mind that during the present war the heaviest types of artillery have been taken into the field; that large guns of the seacoast type have been mounted on railway cars, especially prepared, and that their effect has been

such as to cause modifications in the type of permanent field fortifications, the tendency being to do away with permanent fixed emplacements.

Officers: Officers are recruited from three principal sources: the great military schools, schools for noncommissioned officers, and noncommissioned officers of ten years' service. Commissions are obtained by passing through one of the military schools, either with or without previous service in the ranks. Men who desire a commission without going through the ranks must graduate from St. Cyr for the infantry and cavalry, or the Ecole Polytechnique for the engineers and artillery. Instruction in equitation is given at Saumur for officers of the mounted service. Special courses of instruction for artillery and engineers are given at Fontainebleau. Cadets are admitted at St. Cyr between 18 and 21; course, two years; examination for admission is competitive. Admission to the Ecole Polytechnique is competitive, the age limit being the same as St. Cyr. With certain exceptions in the case of men who have served in the ranks, the course is two years. The course at the school of application at Saumur is eleven months, with an additional year (eleven months) for special advanced training. At Fontainebleau, the advanced course is a two-year course. The Ecole Militaire at St. Maixent completes the military education of the noncommissioned officers of the infantry

cavalry, who, in time of peace, receive commissions only after passing through the course with credit. They must have had two years' service as sous-officier before allowed to compete for admission to this school. The Ecole Militaire at Versailles has a similar course for noncommissioned officers for artillery and engineers.

Officers of the Reserve: Officers of the reserve may consist of, first, officers of the active army who have retired; second, students of the Polytechnique and other schools where a certain amount of military instruction is given; third, certain noncommissioned officers in the reserve.

The students must pass an examination. If satisfactory, they are attached to active regiments for a year for instruction.

Administration: Commander in chief, the President.

Acting commander in chief, Minister of War, assisted by special staff and military and civil officers. There is a Superior Council of National Defense dealing with questions of national defense, which require the cooperation of several ministerial departments.

A Superior Council of War charged with questions relating to preparation for war on the broad lines of policy, superior command, etc.

The General Staff, which coordinates the different supply departments, prepares war plans and considers all questions affecting efficiency.

It is the real directing and governing force of the army.

The chief of the General Staff is the direct adviser of the Minister of War and exercises a very large measure of control over the army and all questions of military education, administration, training, etc.

Organization: The army corps: The largest unit in time of peace is the army corps. France has 21; each corresponds to the district from which it is recruited. One corps is in Algeria. The commander is a major general specially selected as corps commander. The corps is made up as follows:

Fighting strength, 23,000 to 34,000 rifles; lances or sabers, 1,150 to 1,700; guns, 144 to 180.

The Infantry Division: Commanded by a general of division (major general). It is made up as follows:

(1) Staff aids; General Staff; interpreters, officials, etc.

(2) Services: Artillery, infantry, sanitary, pay, post, justice, gendarmerie, escorts, one-half platoon cavalry; total, 20 officers, 105 men (11 cyclists), 87 horses, 10 wagons. Two or three infantry brigades (of 2 regiments of 3 battalions each); 1 chasseur battalion; 1 reserve squadron; artillery, at least 9 batteries (4 guns), 36 guns; 1 engineer company with division bridge train;

1 ambulance company; 1 butcher division. Total, 12 to 18 battalions, 1 squadron, 36 to 48 guns.

Fighting strength, rifles, 11,424 to 17,136; lances, 143; guns, 36 to 48.

Proportion of cavalry and artillery in an infantry division (2 brigades) at war strength: for every 1,000 rifles, 12 to 9 sabers, 3.1 to 2.8 guns.

The Brigade: Commanded by a major general. It contains two regiments.

The regiment: One colonel, 1 lieutenant colonel, 1 adjutant ("captain major"), 1 supply officer (lieutenant), 1 color bearer (lieutenant), 1 surgeon major (captain), 1 bandmaster (lieutenant), 1 master artificer (the sergeant major has immediate charge of the regimental combat train), 1 sergeant hospital corps, 1 baggage master (sergeant in charge of post office), 1 veterinary, 1 farrier sergeant, underfarriers, 1 chief armorer, workman armorers, 1 saddler, 1 sapper corporal, 12 sappers, 1 principal musician, 1 drum major, musicians (band), 12 mounted scouts (drawn from cavalry in war time), bicyclist, orderlies, 21 teamsters (in addition to company and battalion teamsters), 2 or 3 machine-gun sections, 12 clerks.

Transportation (in addition to battalion and company): Eight riding horses, 2 ration and baggage wagons, 1 rolling kitchen, 13 provision wagons, 2 tool wagons, 1 forge, 3 battalions.

War strength, 68 officers, 3,190 men (not including band, farriers, workman, armorers, bicyclist, and orderlies), 183 horses, 63 vehicles. Fighting strength, 2,856 rifles; 1 to 6 machine guns.

The French infantry regiment consists normally of 3 battalions, occasionally 4.

The battalion: One major, 1 adjutant (captain or lieutenant), 1 surgeon (liéutenant), 1 assistant surgeon (contract surgeon), 2 sergeants, 2 corporals, 1 bicyclist, 2 teamsters, 3 orderlies, 4 companies, 19 officers (7 mounted), 1 contract surgeon, 1,011 enlisted men, 1 meat wagon, 1 medical wagon.

The company: One captain (mounted), 3 lieutenants. War strength, 250 men; 7 horses, 3 vehicles (1 ration and baggage wagon, 1 rolling kitchen—still in experimental stage—1 ammunition wagon). Fighting strength, 238 rifles. The 250 men include 4 musicians, 1 hospital corps attendant, 4 litter bearers, 3 teamsters. The company at war strength is composed of 16 squads, combined into 4 sections. The first lieutenant commands the first section; the second lieutenant commands the fourth section; the third lieutenant or sergeant major, the second section; the adjutant, the third section.

Machine Guns: Undoubtedly have been radically modified in the number of machine guns with units very greatly increased. The method of

transporting machine guns and ammunition has also probably been modified, and animals have been replaced largely by light motors, or by motorcycles with attached side cars.

The Cavalry Division: One headquarters, 3 brigades, smaller units of the different arms of the service.

The brigade: Two regiments.

The regiment: One colonel; 1 lieutenant colonel; 2 majors (chefs d'escadron), commanding a half regiment; 1 captain, adjutant; 1 captain, treasurer; 1 captain, in charge of material; 1 lieutenant, assistant to treasurer; surgeons, variable; veterinarians, variable; total staff, 9 officers, 14 horses; supplementary officers, 3 captains (performing functions on the staff and in charge of the mobilization); 4 active squadrons; 1 depot squadron. War strength, 35 officers, not including surgeons and veterinarians; 683 men (not including men of the auxiliary service, 60 men to the regiment). Officers' horses, 48; troopers' horses, 670. Fighting strength, 572 lances.

The squadron: One captain, 4 lieutenants. War strength, 5 officers, 160 men, 143 riding horses, 4 draft horses. Fighting strength, 143 lances.

Field Artillery: The regiment: One colonel; 1 lieutenant colonel; 3 majors (chefs d'escadron); 1 major; 1 captain (adjutant major); 1 captain, director of the park; 1 captain, charge

of mobilization; 1 captain, instructor of equitation; 1 captain, treasurer; 1 captain; 1 major surgeon; 1 contract surgeon; 1 major, veterinarian; 1 first veterinarian; 1 second veterinarian; 1 third veterinarian; 1 aid veterinarian; 9 to 12 batteries.

The battery: Peace strength: light battery, 3 officers, 90 to 160 men; 57 horses, 4 pieces; horse battery, 103 horses, 4 pieces. War strength: 5 officers, 170 to 200 men.

Promotion of Officers: Second lieutenants are promoted to first lieutenants after two years. Lieutenants are promoted to captains by arm as vacancies occur, two-thirds by seniority, one-third by selection.

Captains are promoted majors as vacancies occur, one-half by seniority, one-half by selection. All promotions above majors are made by selection.

Germany[1]

Population, approximately 67,000,000. Army: Peace strength, 820,000 officers and men. Annual appropriation, $210,500,000, approximately (1913). Total war strength, 5,000,000. For a war of defense, 9,500,000, of whom 6,500,000 have had military training.

The German army as now organized in peace consists of 25 army corps and 1 cavalry division,

[1] War Department document 499 and other sources

besides certain special troops, schools, recruiting districts, etc.

The organization into armies is provided for by existing headquarters and staffs of six so-called inspection districts.

Normally, the army corps is composed of two infantry divisions and certain train troops and other auxiliaries. There are now, however, two corps having three divisions each, making a total of fifty-two divisions and one cavalry division.

While the cavalry divisions which would mobilize in war are not all formed in time of peace, there exist certain staffs for such divisions and they are assembled for instruction from time to time.

The division in peace varies somewhat in organization. There is, however, a definite normal division, and this division would be the rule in war.

Infantry: There are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division, with one of the divisions in a corps having an extra battalion of sharpshooters (Jägers or Schützen).

There are 112 infantry brigades, with 217 regiments. There are 651 battalions of infantry. The strength of battalions in peace is either 18 officers and 641 men, or 22 officers and 719 men, depending upon circumstances. The infantry numbers

in peace, including machine-gun detachments, 17,690 officers and 489,541 men. The strength of the battalion in war is variously estimated at from 980 rifles to 1,000 rifles.

Artillery: The artillery is divided into field and foot (fortress) artillery.

The fortress artillery garrisons the land fortresses, such as Metz, etc., and furnishes the heavy field and siege artillery needed with the mobile arm. Seacoast fortifications are under the navy.

Field Artillery: The typical field artillery formations are as follows: Three batteries to the battalion, 2 battalions to the regiment, 2 regiments to the brigade. The battery has 6 guns. There are 50 field artillery brigades and 100 regiments. There are 609 batteries.

The peace strength of batteries varies according to circumstances, as follows: Four officers and 143 men, 4 officers and 124 men.

The field artillery numbers in peace 4,692 officers and 82,091 men. The battery in war counts 5 officers and 150 men.

Each battalion in war has a light-ammunition column of 4 officers and 188 men.

The total war strength of a battalion is thus about 660 officers and men.

Foot (Fortress) Artillery: The organization of the foot artillery varies greatly. It may be said, however, that the typical formations are as fol-

lows: Four batteries to the battalion, 2 battalions to the regiment.

Cavalry: The typical formations of cavalry are as follows: Five squadrons to the regiment, 2 regiments to the brigade. There are 1 cavalry division, 69 brigades, 110 regiments, 547 squadrons. The squadron should not be confused with the squadron in the United States.

In peace the regiment has 26 officers and 740 men.

The cavalry numbers in peace 2,585 officers and 84,071 men.

The squadron on a war footing numbers 5 officers and probably 180 men, of whom 150 are counted as sabers.

It is probable that the regiment mobilizes only 4 squadrons, the fifth squadron being left behind as a depot squadron.

Technical Troops: Germany divides troops of this class into pioneer troops and "Verkerstruppen," literally, communication troops. The latter are further subdivided into railroad troops, telegraph troops, airship troops, etc.

Total Peace Strength: The total peace strength amounts to 806,016 officers and men. To these there should be added from 10,000 to 12,000 "Einjährigfreiwillige." These men serve for one year, defraying their own expenses.

Total War Strength: The organization of Germany's maximum mobilization cannot be given

with any degree of accuracy. The sum total of trained men which she is able to mobilize amounts to 4,610,000.

Colonial Troops: No German troops of the army proper serve outside the home country in time of peace.

Conditions of Service: Service is compulsory and liability extends from the seventeenth to the forty-fifth year of the citizen's age.

Service with the colors is three years with the cavalry and horse artillery and two years for other arms.

After serving with the colors, the men pass into the reserve, in which they serve four years and six months or five years and six months, according to the arm of the service. During their service the men of the reserve may be called out for two periods of training of eight weeks each. In practice the majority of the reserve is seldom held longer than twenty-eight days for each period.

Passing from the reserve, the men go into various other categories. The characteristic of this transition is the constant diminution of the period for which the men are liable to be called out for peace training. This diminution is continued until, reaching the Landsturm, they are only liable for call in war.

War strength: 1913, real military resources, 7,000,000 men, of whom 5,000,000 have had mili-

tary training. This estimate is for a war of defense, and is practically its resources in men. For an offensive war there would promptly be available the active army, the reserve, the Ersatz reserve, and the first division of Landwehr—a total of about 3,000,000 men. These would again divide into a "first-line" army of about 1,700,000 men and a "second-line" army of about 1,300,000 men.

Administration: Commander in chief, the Emperor, absolute in time of war; somewhat limited in time of peace, as to the Bavaria, Saxony, and Württemberg contingents. He is assisted by a military cabinet consisting of the Ministry of War, the Great General Staff, the inspectors of the army, the inspectors of the various arms.

Organization: The largest permanent unit in time of peace is the army corps, Germany has at present 25. Each corps, excepting the Guard Corps, stationed in Berlin, has a territorial district assigned to it from which it is recruited.

The Army Corps: Commanded by a general. It consists in time of peace of 2 divisions of infantry (each having 1 brigade of cavalry); 1 to 3 regiments of heavy artillery (six army corps have no heavy artillery; one has 1 battalion, fourteen have 1 regiment each, three have 2 regiments each, one has 3 regiments); 1 to 2 battalions of pioneers with bridge train; 1 to 2 Jäger

battalions (in sixteen of the 25 corps); 1 battalion (4 companies) of train troops.

Communication troops: Two corps have railroad, telegraph and balloon and aviation corps; one corps has telegraph, balloon, and aviation troops; one corps has railroad and telegraph troops; two corps have telegraph troops.

Composition and strength of a mobilized army corps: Two infantry divisions, 1 company of pioneers, 1 section of balloon troops, ½ company of field signal troops, 1 section of radio troops, 1 section of telephone troops, 1 cavalry telegraph section (sometimes a battalion of heavy field howitzers is added, 4 batteries of 4 guns each—16 guns), 12 ammunition columns; 4 artillery ammunition columns; 6 supply columns, 1 corps bridge train, 2 field bakery columns, 12 field hospitals, and 2 horse depots.

War Strength: Fighting strength, 23,750 rifles; 1,200 lances; 144 guns.

The Division: The division is commanded by a lieutenant general, who exercises supervision over all the troops composing it in their instruction and training. He directs the division maneuvers and supervises those of the brigades, and is the head of military justice in the division.

Staff of the division commander: One officer of the general staff; 1 adjutant; 3 to 4 judge advocates; 1 head of supply service; 1 division surgeon; several chaplains.

Composition of the division: Two to 3 brigades of infantry (12 to 18 battalions); 1 regiment of cavalry (4 squadrons); 1 brigade of field artillery; 1 company of engineers (pioneers); 1 light bridge train; 1 sanitary company; 1 telephone section; 2 infantry ammunition columns; 4 artillery ammunition columns; 6 supply columns; 4 field hospitals; 1 horse depot.

Numerical strength: Men, 17,000; horses, 4,000; vehicles (including guns), 600.

Fighting strength: Twelve thousand two hundred and fifty rifles (13,500 if Jägers are attached), 600 lances, 72 field guns. Proportion of cavalry and artillery in an infantry division at war strength: for every thousand rifles, 50 lances, 6 guns.

The Infantry Regiment: The regiment consists of 3 battalions and a machine-gun company, commanded by a colonel or lieutenant colonel. War strength: 3,290 men, 190 horses, 59 vehicles; fighting strength, 3,000 rifles. Transportation: One headquarters baggage wagon, 1 intrenching tool wagon.

The infantry battalion: Commanded by a major; 1 battalion adjutant; 4 companies. Transportation: combat train, 1 battalion sanitary wagon; field train, 1 headquarters baggage wagon.

The infantry company: Commanded by a mounted captain. From 3 to 4 lieutenants. War

strength: 270 men, 10 horses, 4 vehicles (combat train, 1 ammunition wagon, 1 field kitchen; field train, 1 ration wagon, 1 baggage wagon). Fighting strength: 250 rifles.

The company is divided into 3 platoons, a platoon into half platoons, and the half platoons into squads of 8 men.

The machine gun company: Officers: one captain, 3 lieutenants, all mounted. Six guns, greatly increased, divided in 3 platoons of 2 guns each. War strength: 90 men, 40 horses, 12 vehicles.

Jägers: These are infantry that have received special training in musketry.

The Cavalry Division: Commanded by a lieutenant general. It consists of 3 brigades of cavalry (2 regiments, 4 squadrons each); 1 battalion of horse artillery (3 batteries of 4 guns each, 12 guns); 1 machine-gun section (6 machine guns); 1 pioneer section (35 to 40 men); 1 radio section; 1 light ammunition column. War strength: 5,000 men, 5,300 horses, 200 vehicles (including guns); fighting strength, 3,600 lances, 12 guns.

Cavalry divisions are not formed in peace time. Upon mobilization, the peace army corps lose all the cavalry assigned to them except one regiment per division — the divisional cavalry. Cavalry divisions are then formed as above.

The Cavalry Regiment: It consists of 5 squadrons in time of peace. Upon mobilization, the fifth squadron is used to fill up the other four, and then becomes the depot squadron. The regiment is commanded by a colonel or lieutenant colonel.

Each regiment has a bridge equipage, carried upon two 6-horse wagons, that permits the construction of a bridge, 1 by 20 meters, or 2 by 12 meters, or 3 by 8 meters, or a raft of 16 square meters surface. Each regiment has 2 telephone detachments, each consisting of 1 noncommissioned officer and 3 privates. War strength: 730 men, 800 horses, 19 vehicles, 4 squadrons; fighting strength, 600 lances.

The squadron: Commanded by a captain; 3 to 4 lieutenants. War strength: 180 men, 180 horses, 3 vehicles; fighting strength, 150 lances.

Field Artillery: The brigade: Commanded by a major general or colonel. It consists of 2 regiments—72 guns; 1 battalion of the field artillery of each army corps is a howitzer battalion.

The regiment: Commanded by a colonel or lieutenant colonel. It has 2 battalions (some have 3)—36 guns.

The battalion: Commanded by a major. It consists of 3 batteries—18 guns.

The battery: Commanded by a captain; 3 lieutenants (4 with a horse battery). A mobil-

ized battery has 6 guns, divided into 3 platoons of 2 guns each.

Promotion of Officers: No law regulates promotion or limits age. The Emperor promotes officers, conforming to certain traditions. Practically, officers deemed fit for a higher grade are promoted by seniority. Those that are passed over are warned to apply for retirement.

Promotions take place as follows: To first lieutenant from the arm; captain, by corps in the infantry, cavalry, and artillery, by arm in the chasseurs, pioneers, and train; to major, from the arm, except in the infantry where it is by regiment.

Recruitment of Officers in Time of Peace: In the active army: In time of peace officers are obtained principally from two sources, (1) from the Corps of Cadets; (2) from young men of education and culture who enter the army as Fahnenjunkers (ensigns).

Appointment as a commissioned officer must be preceded by appointment as Fahnrich (ensign). Appointment as Fahnrich is conditional upon:

(a) The age limits within which persons may be appointed ensigns are 17½ and 23.

Appointment as commissioned officer is conditional upon:

(a) Attendance at a "war school" (in exceptional cases this may be dispensed with; for in-

stance, where a candidate has studied several terms at a higher educational institution).

(b) Passing the "officers' examination" at a "war school" or as a member of the Selekta.

(c) A favorable indorsement or certificate from the troop unit to which the candidate is attached.

(d) Election by officers of the regiment.

The election of new officers by the Corps of Officers was introduced in the Prussian army in 1808. For conspicuous bravery or conduct on the field of battle recommendations for a commission may be made. But there, also, such a recommendation must be preceded by a vote of the officers of the regiment.

The officer aspirant must be at least 23 years of age, must be unmarried, a German by birth, and physically qualified for service. Each candidate should have a diploma from a certain type of institution and served one year in the army.

Officers who are "furloughed" may be required as Landwehr officers to attend exercises especially ordered for the Landwehr, or, if they wish, to duty with troops of the active army. They are assigned either to troops of the Landwehr or of the line.

Military Schools—Corps of Cadets: The organization of the Cadet Corps is made up largely of the sons of officers, and receive their subsistence, clothing, and tuition free, or at a nomi-

nal charge. After passing through one of the six "cadet houses," which are situated at Köslin, Potsdam, Wahlstatt, Benberg, Plön and Oranienstein, cadets enter the Central Cadet Institute at Gross Lichterfelde, in the vicinity of Berlin, of which a colonel is the superintendent, where they are formed into companies and battalions for military drill and discipline.

The cadets who pass the examination are transferred to the army as actual ensigns and simultaneously sent to the War School. If, after going through the latter, they pass the officer examination with credit, they are commissioned second lieutenants as of the date of their transfer to the army.

Except that the pupils are uniformed, armed, and drilled, the cadet houses and the Central Cadet Institute correspond in organization and course of study to the Realschools (Realschulen), at which young men are prepared for the higher technical schools (technische Hochschulen). The Realschools again bear a certain resemblance to the Gymnasia, graduates (Arbiturienten) from either of which are ripe for the university or a higher technical school and need not undergo the ensign examination, the chief distinction between the Realschool and the Gymnasium being that special attention is devoted in the former to the dead languages and classics, and in the latter to the sciences.

Greece

Population, 3,000,000. The military service is universal. Peace strength, 25,000. War strength, 250,000 (doubtful). Total available strength, about 400,000. Budget, about $17,000,000. The age of liability to service is 21 to 57: two years in the active army; eleven in the active army reserve and nine in the second reserve, with an added service of seven years for all branches in the territorial army, and seven more in the territorial reserve. Men in excess of the annual contingent receive six months' intensive training and are then transferred to a supplementary reserve.

Holland

Population, 6,250,000. Military service is to a great extent compulsory. Peace strength, approximately 23,000 officers and men. Field army, approximately 125,000 men. Total strength, 900,000. Budget, $14,000,000. Colonial army budget, $16,000,000.

There is a small proportion of voluntary enlistments. Every Dutch citizen is liable to service from 19 to 40. Actual service is determined by a law and substitution is not allowed. The annual contingent for the army is 22,400. Voluntary enlistment by men who wish to make the army a career is for ten years, two to three years with the colors. Men may reenlist if noncommissioned

officers. Those who serve under the universal-service provision serve for six years in the active army if in the dismounted service, and eight years if in the mounted service. Infantry receive eight and a half months' training. First two engineers and garrison artillery (under certain conditions six and a half months) serve twenty-four months in the cavalry and in the horse and field artillery. After fulfilling their active service, they pass through the second-line troops or the Landweer for three years. Men who belong to the mounted service are liable to be called out once for four weeks for training during that period when they are not in active service but are still members of the active army. Those of all other arms are liable to be called out once for four and once for three weeks. On completion of their active service, men pass into the Landweer for five years. From the Landweer they pass into the Landstorm.

The Dutch colonial army consists of about 34,500 officers and men, of whom approximately 12,000 are Europeans. There is also a small reserve, of both Europeans and natives. These troops are well trained and well equipped.

Italy [1]

Population, approximately 35,000,000. Peace strength, 305,000; war strength, 1,600,000.

[1] War Department document 499.

Annual budget, $82,000,000. Total strength for defensive war about 5,000,000 men.

The Italian military system is complicated. It is composed of the regular army, the mobile militia, and the territorial militia. The two latter categories are not constantly under arms and in reality form a kind of reserve (Landwehr) into which men pass after service with the colors. Both the mobile and the territorial militia are composed of all arms of the service. The available data as to the strength of the militia are so conflicting as to make it impossible to give any reliable figures as to the composition and strength of the several arms of the service in those forces.

There is a system in vogue of giving extensive (unlimited) periods of leave. The figures as to the total strength of the several arms are, therefore, to be regarded as approximate.

Higher Organization: Commanders and staffs for four armies exist in time of peace.

There are 12 army corps, 25 divisions, and 3 cavalry divisions organized in peace.

Infantry: The typical formations are 4 companies to the battalion, 3 battalions to the regiment, 2 regiments to the brigade, 2 brigades to the division. Battalions of "Bersaglieri" and "Alpine troops" have 3 companies each, while regiments of these troops have 3 or 4 battalions.

There are 51 brigades, 116 regiments, 389 battalions. Each regiment has a "depot."

The total number of infantry officers is 7,891. A close approximation to the total number of officers and men of infantry is 162,000 for the peace footing. The war strength of units is difficult to estimate. A considerable part of the infantry is composed of cyclists and of Alpine troops. The war strength of these organizations runs from 120 to 150 men per company. On the other hand, the infantry of the line probably numbers 250 men to the company.

Artillery: All artillery officers are on one list.

The main subdivisions are the field artillery and the fortress artillery. The latter is composed of coast artillery and of fortress (land) artillery proper.

Dividing the artillery among the several classes, we have:

Field Artillery: There are 36 regiments of field artillery, with 72 battalions, 193 batteries of from 4 to 6 guns, 36 train companies, and 36 depots (train companies form light ammunition columns). There are 2 regiments of heavy field artillery, with 10 battalions, 20 batteries, and 2 depots.

There is 1 regiment of horse artillery, with 4 battalions, 8 batteries, 4 companies of train, and 1 depot.

There are 2 regiments of mountain artillery, with 8 battalions, 24 batteries, 2 depots.

Totaling the above, we have: 41 regiments, 90

battalions, 263 batteries, 40 train companies (light ammunition column), 41 depots.

In addition to the above, there are various remount establishments, "directorates," etc. These organizations are fixed under the law by royal decree, but no definite data are available. It will be seen that, deducting 6 batteries for the 3 cavalry divisions, about 20 batteries are available for each of the 12 army corps.

If the heavy batteries have 6 guns each, the number of guns per corps would be about 120.

The total peace strength is about 34,000 officers and men and is probably being increased.

Coast and Fortress Artillery: There are 10 regiments of coast artillery.

The peace strength of companies is 3 officers and 107 men. The total peace strength of the coast artillery, including headquarters detachments, is about 5,000 officers and men.

The war strength of companies is 5 officers and 200 men.

The total peace strength of fortress artillery, including detachments, is about 6,500 to 7,000 officers and men.

According to Veltze, material exists at Alessandria, Mantua, and Piacenza for forming 3 groups of 9 batteries each of mobile artillery.

Cavalry: There are 8 brigades with 29 regiments and a certain number of depots.

The total number of cavalry officers under the new law is 985.

In peace each regiment has 5 squadrons with a nominal strength of 4 officers and 155 men each. The total peace strength is thus about 27,000 officers and men.

It appears that in war each regiment would have 6 squadrons with 5 officers and 133 men each, counting 120 sabers.

Technical Troops: The engineers have various establishments, headquarters, etc.

There are 6 regiments, 24 battalions, 79 companies, 6 depots. The total number of engineer officers is 610.

The peace strength varies, the usual strength being 3 officers and 110 or 120 men per company.

The total peace strength is about 11,000 officers and men.

In war companies have from 200 to 250 officers and men.

Supply Train: There is one company for each of the 12 army corps. The total peace strength is about 2,500 officers and men. The war strength is unknown.

Sanitary Troops: The law provides 763 medical officers and 12 companies of varying strength—about 5,600 officers and men.

Gendarmes: The police might, in war, be employed to a limited extent. Some authorities go

so far as to think they would all be so employed. They actually form an integral part of the army.

There are twelve so-called legions, with 671 officers and about 26,000 men. About 4,000 of these men are mounted. The remainder are dismounted. It is probable that in war the carbineers would mobilize one infantry brigade, numbering about 7,000 officers and men.

General Remarks: In addition to the troops enumerated, there are numerous special formations, schools, etc.

Total War Strength: The complex system and the custom of giving indefinite leave to untrained men render it difficult to estimate Italy's strength in fully trained men. On paper she could mobilize 3,500,000 men. A conservative estimate would seem to be 1,300,000 fully trained men.

Colonial Troops: In addition to the troops already mentioned, Italy maintains in her African possessions 132 officers and 4,530 men; of the latter, 660 are Italians and the remainder natives.

Conditions of Service: Service is compulsory, and liability extends from the 20th to the 30th year of the citizen's life. Service with the colors is nominally for three years; but, as the budget is seldom sufficient, many men are released with one or two years' training. These pass from the colors to a form-of-leave status, in which they serve to complete a total period in the regular army of eight or nine years.

The men then pass into the mobile militia, from which they go into the territorial militia. During their stay in the category of the "conge illimite," as well as in the militia, the men are subject to calls for instruction—thirty days per year for the leave status and mobile militia, thirty days in four years for territorial militia.

Administration: Commander in chief, the King.

The Supreme Commission of Defense of the State, which studies questions of defense and arranges the cooperation of the army and navy.

The Council of the Army, which studies questions of the army.

The Ministry of War, which comprises seven bureaus of administration, viz., General Affairs, Personnel, Civil Personnel and Pensions, Logistics and Supply, etc., Artillery and Engineers, Recruiting and Troops, Revision of Accounts; the General Staff.

The general inspections, which provide the instruction and technical direction of special branches of the service.

Army Corps: There are 12 army corps. The corps is commanded by a lieutenant general. His staff consists of 1 colonel; 1 lieutenant colonel; 1 captain; 2 captains, attached; 1 veterinary officer; 1 transport officer; 1 aid.

In war the component parts of an army corps are 2 infantry divisions of the active army, 1

infantry division of the mobile militia, 1 regiment of Bersaglieri, 1 regiment of cavalry, 1 regiment of field artillery containing 2 groups each of 2 batteries with 6 guns to the battery (36 guns), 1 telegraph company and park, 1 corps artillery park, 1 ammunition column, 1 engineer park, 1 supply ambulance company, 4 field hospitals, 1 supply column, 1 reserve supply park. Approximate strength, 50,000 men, 8,400 horses, 126 guns.

Infantry Division: There are 24 active divisions and 12 of mobile militia, each commanded by a lieutenant general.

Staff: One lieutenant colonel, 1 or 2 staff captains, 2 or 3 attached staff captains, 1 orderly officer, representatives of medical and commissariat services.

In war a division consists of 2 infantry brigades, each of 2 regiments, total 12 battalions; 1 regiment of field artillery containing 2 groups, one of 2 and one of 3 batteries, with 6 guns to the battery, total 30 guns; 1 company of engineers, 1 bridging section (44 yards of bridge); 1 telephone park (25 units line and 16 stations); 1 divisional ammunition column, 1 field ambulance, 1 supply section. Approximate strength, 14,200 men, 1,400 horses, 30 guns.

Proportion of cavalry and artillery in infantry division at war strength: for every 1,000 rifles, no sabers, 2.5 guns.

The brigade: The ninety-six regiments of infantry are organized in forty-eight brigades.

The regiment: The infantry of the line consists of two regiments of grenadiers and ninety-four regiments of the line. The regiments are composed for the most part of three or four-company battalions, a machine-gun section, and a depot for the regiment and one for the mobile militia; twenty-four regiments have a fourth battalion, but these units are being used as part of the colonial army, and do not alter the composition of the regiments in Italy.

The Bersaglieri consist of 12 regiments of light infantry recruited from selected men of good physique. Each regiment, except three, consists of 3 battalions, 1 cyclist battalion, and a depot. Each infantry and cyclist battalion has 3 companies. The excepted regiments have 4 battalions.

The Alpini regiments are 8 in number, divided into 26 battalions, 78 companies, 26 machine-gun sections, 26 nuclei for mobile militia, and 8 depots.

The infantry regiment is organized as follows: headquarters, 1 colonel, 1 lieutenant colonel or major at the depot, 1 lieutenant colonel or major at nucleus for militia mobilization, 3 or 4 captains, 3 captains at nucleus for militia mobilization, 1 captain at depot, 3 lieutenants, 3 lieutenants at nucleus for militia mobilization, 2

captains (medical officers), 1 bandmaster, 3 battalions, 12 companies, 1 machine-gun section, 1 depot, 1 nucleus for militia mobilization.

War establishment: The regiment, 78 officers, 3,113 men, 63 horses, 18 wagons. The battalion, 24 officers, 1,019 men, consists of 4 companies. It has 15 horses, 5 wagons. The company, commanded by a captain, mounted, in peace varies in strength, but averages 3 officers and 75 men; in war, 5 officers, 250 men, 1 horse.

Machine guns: Greatly enlarged unknown. One section to each regiment of infantry and cavalry.

The Cavalry Division: Commanded by a lieutenant general or major general. The staff consist of 1 colonel, 1 captain, assisted by representatives of the medical and commissariat services. In war a cavalry division is composed of 2 brigades of cavalry, each of 2 regiments of 5 squadrons, a total of 20 squadrons; 1 group of horse artillery, 2 batteries of 4 guns each, a total of 8 guns; 1 battalion of cyclist Bersaglieri; 1 cavalry ambulance company; 1 supply section; 1 bridging section (44 yards of bridge); 1 divisional ammunition column. Approximate strength: 4,200 men, 4,200 horses, 8 guns.

The regiment: headquarters, 1 colonel or lieutenant colonel, 1 lieutenant colonel or major, 1 lieutenant colonel or major at depot, 1 or 2 cap-

tains, 1 captain at depot, 1 lieutenant, 4 or 5 lieutenants, 2 medical officers, 1 administrative officer, 2 veterinary officers, 5 squadrons, 1 depot, 1 mounted machine-gun section. There are 29 regiments, 4 heavy cavalry, 8 lancers, 17 light cavalry. A regiment has from 36 to 39 officers, 908 other ranks, 790 horses.

The squadron: War strength, 4 officers, 165 other ranks, 150 horses.

Field Artillery: The regiment: Commanded by a colonel or lieutenant colonel. Groups and depots are commanded by lieutenant colonels or majors. Batteries and transport companies are commanded by captains. The staff includes 2 medical and 2 veterinary officers. There are 2 groups of batteries and 1 transport company, and 1 depot to a regiment.

The first 12 regiments, each of 6 batteries divided into 2 groups, form the corps artillery of the 12 army corps. The remaining 24 regiments constitute the divisional artillery of 24 of the 25 divisions.

Regiments of divisional artillery are formed of 2 groups, one of 3 and one of 2 batteries.

The 36 depots each contain regular cadres for one mobile militia battery. The depots when reenforced by men of the mobile militia are expected to furnish 63 batteries in case of mobilization.

The artillery is composed of the following

units: 1 regiment of horse artillery, 36 regiments of field artillery, 2 regiments of heavy field artillery, 2 regiments of mountain artillery, 10 regiments of fortress artillery.

The battery: War footing, 4 officers(152 other ranks, 122 horses, 6 guns. (Some batteries have 4 guns only.)

Promotion: Promotion is made by selection and seniority. Second lieutenants are promoted after three years of service to first lieutenancies. Promotions from first lieutenant to captain go one-fourth by selection, three-fourths by seniority, all subject to examination. Lieutenants are promoted to captaincies, even if there are no vacancies in that grade, after 15 years' service as officers. Promotion to the grades of major and lieutenant colonel are by seniority exclusively; from the grade of colonel, exclusively by selection.

Montenegro [1]

Population, 516,000. Military budget for 1913, about $900,000.

The military organization of Montenegro is a militia organization. All men are liable for military service from 18 to 62. The periods are divided as follows: Two years in the recruit training, thirty-three years in the so-called active army, and ten years in the reserve. During

[1] Statesman's Year Book.

service in the active army men are divided into two classes. The first class is made up of men who are considered to be fully fit for active service in any capacity; while the second class is composed of men suited only for the less arduous service—service behind the lines, transport service, medical service, etc.

During the two-year period of recruit service the recruit is called for two courses of training, which last for about three months in the artillery, two months in the infantry and other arms. All men in active service are liable to annual call for ten days' training.

War strength of the Montenegrin army is approximately 40,000 men. For defensive war this number could probably be increased to 75,000 or 80,000 men. The people are hardy and make good soldiers.

Norway[1]

Population, 2,500,000. Military service is universal and compulsory. Peace strength, 14,000. War strength, immediate, 110,000; possible, 350,000. Budget, $4,200,000.

Military service in Norway begins at the age of 18 and continues to the age of 55. The men are called out at 23, and for 12 years belong to the line; then for eight years to the Landvarn. They then pass into the Landstorm, where they

[1] Statesman's Year Book.

remain until they are 55 years of age. The primary training is through recruit schools lasting for forty-eight days for the infantry and garrison artillery; sixty-two days for the mountain batteries; seventy-two days for the engineers; ninety-two days in the field artillery; and one hundred and two days in the cavalry. As soon as the men finish this primary course of training, they are assigned to units to which they will permanently belong, and with them they go through an additional training of twenty-four days. Subsequent training consists of twenty-four days in the second, third, and seventh years of service.

Portugal

Population, 6,000,000. Universal service from 17 to 45. Practical service begins at 20 years of age; ten years in the active army, ten in the reserve, and five in the territorial army. In the active army recruits have from 15 to 30 weeks' preliminary training, according to the arm of service. Afterward two weeks' training during the annual mobilization. Peace strength of the army, 30,000; number of officers, 2,800. War strength about 170,000. Total available strength for a defensive war about 850,000. A republican guard, or military police, of 5,000 men is available for military service. Two regiments of infantry are stationed in the Azores, and one at

Madeira. Military budget about $11,000,000. The Portuguese are a hardy race, easily subsisted.

Rumania

Population, 7,515,000. Military service universal and obligatory, 21 to 42. Peace strength, 1912, 103,000 men. War strength at outbreak of war, 300,000. Total military strength for defensive war, 1,100,000 (about). Budget, about $13,000,000.

Young men from 19 to 21 receive a certain amount of preliminary training at their homes. At the age of 21 they enter the ranks and serve, two years in the infantry, three years in the other arms, followed by five or four years in the first line.

At the age of 28 they are transferred to the reserve for ten years, then at 38 to the territorial force for four years. The men who are exempted from military service because of their occupation, and those in excess of the annual contingent, receive a certain amount of instruction and form a supplementary reserve. The war strength is about 1,100,000; but the availability of this force would depend very largely upon the supplies of arms and munitions of war which would have to be procured from outside the national quarters.

The Rumanians are a hardy people. Their organization is based very largely on the German

organization, including the General Staff under the direction of military policy.

Russia

Population, approximately 171,000,000. Peace strength, 1,284,000; guns, 3,000. War strength, 6,000,000; guns, 5,000. Annual appropriations in peace, about $374,000,000.

It is difficult to make a résumé of the Russian army.

The vast extent of Russia's territory, the internal conditions of the nation, and the character of the countries adjoining her make it necessary for her to maintain what amounts to three separate armies; namely, the Army of Europe and the Caucasus, the Army of Central Asia, and the Army of Siberia and Eastern Asia. Also the troops are divided into numerous categories, some of which are most unusual and about which there is little information that can be depended upon. For example, we find "active troops," "reserve troops," "second reserve troops," and "fortress troops."

Higher Organization: The entire territory is divided into thirteen districts, each district having a commander who commands.

There are 37 army corps, with 59 divisions organized in peace. In addition there are 23 cavalry divisions organized in peace. The cavalry divisions are usually assigned to army corps in

peace. The cavalry division usually contains 24 squadrons, with 2 horse batteries.

The organization of the army corps varies in peace, but usually has two divisions.

The strength of the army corps at full war strength is probably 29,000 infantry rifles, 1,800 cavalry, and 112 guns, with a varying additional number of heavy guns.

Infantry: Typical formations are as follows: Four companies to the battalion; four battalions to the regiment; two regiments to the brigade; two brigades to the division.

There are, however, regiments with 2 or 3 battalions and battalions with 5 or more companies. There are 160 brigades with 343 regiments in the active army. The total number of battalions in the active army is 1,258.

Of fortress troops there are 44 infantry battalions. The infantry battalion numbers in peace, on the average, about 500 officers and men.

The total peace strength of the infantry of the active army and of the fortress troops is, therefore, 815,000 officers and men.

The war strength of the battalion is, probably, 872 rifles with a total of 1,000 officers and men.

Artillery: The artillery is divided between the artillery of the active army and that of the fortress troops, as well as the categories not considered here.

The batteries of the fortress troops are further

divided into "sortie" batteries, "siege" batteries (including heavy field) and "fortress batteries." Of the latter class some are serving as coast artillery. Separating these various classes, we have:

Field Artillery: The Russian artillery organization is peculiar. Batteries contain in peace four to eight guns, eight in war, and are commanded by lieutenant colonels. As the battery is so organized as to be divisible into two self-sustaining "half batteries," it may be said that the Russian "battery" in war is in reality a battalion. Two or three batteries form a group (regiment), and two or three groups a brigade, commanded by a general officer.

As a rule, there are six batteries (48 guns) in one of the divisions of a corps, and eight batteries (64 guns) in the other division.

Horse artillery batteries have six guns. There are 61 artillery brigades in the active army, with 199 "groups" (regiments).

Siege (Heavy Field) Artillery: There are 58 batteries, all of which are carried as a part of the fortress troops. The peace strength is 3 officers and 119 men, giving a total of some 7,076 officers and men.

The war strength of these batteries is probably 3 officers and 238 men.

Fortress Artillery: There are 264 companies of fortress artillery. Of these 116 are serving at

fortresses situated on the seacoast; it is assumed that these 116 companies are all serving as coast artillery, although such is not believed to be the case.

Cavalry: The cavalry organizations vary greatly. The regiment contains from 2 to 6 squadrons, 6 being the most frequent number. As already stated there are 23 cavalry divisions organized in peace.

There are 745½ squadrons in the active army. The strength of the squadron varies greatly. The maximum average is probably 5 officers and 150 men. There are in the active army in peace about 138,000 officers and men.

The war strength of the squadron probably averages 5 officers and 163 men, counting 150 sabers.

Technical Troops: These troops comprise engineer and signal troops. In the active army there are 299 companies of these troops. In the "fortress troops" there are 47 companies.

Supply Train: On a peace footing there are many battalions of 4 companies each in Europe and in Siberia. The peace strength of these organizations is not known. It is probably very large, considering the number of organizations, as on mobilization they furnish a complete supply train for each army corps.

Sanitary Troops: The sanitary officers have no military rank, but instead have civil rank. The

total peace strength of surgeons is 3,500, including surgeons of classes of troops other than those considered here. The peace strength of enlisted sanitary troops is not known.

General Remarks on Troops: It is to be noted that there are many officers of infantry, cavalry, and artillery not included in the above. Neither are the men of various staffs, etc., included; nor the staff officers. There are also a great many special formations for schools, police, etc., concerning which no accurate information is available.

Total Peace Strength: The total peace strength amounts all told to about 1,284,000 officers and men.

Total War Strength: The total number of trained men subject to call amounts to about 6,000,000.

Conditions of Service: Military service is obligatory. Passing from service with the colors, the men pass into various reserves.

Service is obligatory between 21 and 43 years, unless especially excepted. (a) Infantry and field artillery: 3 years active, 7 years in first reserve, 8 years in second reserve, 5 years in militia. (b) Cavalry and horse artillery: 4 years active, 7 years in first reserve, 6 years in second reserve, 5 years in militia. (c) All born Cossacks, beginning with twentieth year, serve 1 year in the preparatory category, 4 years in each of the

first, second, and third categories of active service, and 5 years in the reserve category.

Administration: The chief command and administration is vested in the War Ministry. The War Ministry has various subdivisions, of which the most important are the Council of War, the General Staff, the intendance, the inspectors general of cavalry, artillery, engineers, schools, target practice, army command.

Armies: On mobilization, three or four army corps are formed into armies.

The Army Corps: Two infantry divisions, 1 field howitzer section—12 guns, 1 field howitzer park section, 1 telephone section, 1 telegraph company, 1 sapper company, 1 veterinary hospital, 2 movable bakers' ovens, 1 hygiene section, 1 corps-supply transport, corps section of field engineer park, cavalry or Cossack sections.

Fighting strength: 29,000 rifles, 900 sabers, 64 machine guns, 108 guns. Total: 1,100 officers and officials, 43,000 men, 12,000 horses.

The Cavalry Corps: It is intended to form cavalry corps of two or three cavalry or Cossack divisions each.

The projected formation in war is as follows: Two cavalry divisions, corps-supply transport.

The Infantry Division: An infantry division consists of 2 infantry brigades; 3 squadrons of

cavalry; 1 artillery brigade; 1 park artillery brigade; 1 telephone section; 1 bridge park; 1 sapper company; division train; sanitary transport consisting of 1 disinfecting section, 2 field hospitals, 1 divisional hospital; supply transport. Fighting strength: 14,400 rifles; 450 sabers; 32 machine guns; 48 guns. Total strength: 500 officers and officials, 20,000 men, 4,900 horses. Proportion of cavalry and artillery in an infantry division at war strength: for every 1,000 rifles, 31 sabers, 3.3 guns.

The infantry brigade: Two regiments of four battalions.

The regiment: In peace as well as war, there are 348 infantry and rifle regiments with 1,252 battalions, out of which there are in Europe 280 regiments with 1,032 battalions; in Turkestan, 22 regiments with 44 battalions; and in Siberia, 44 regiments with 176 battalions. The infantry and the Siberian rifle regiments have 4 battalions of 4 companies each. The European and Turkestan rifle regiments have only 2 battalions of 4 companies each. Each company has 4 platoons.

In each regiment there are formed from the separate companies scouting and information detachments. The former (scouting) are not mounted in the European regiments, and consist, in a 4-battalion regiment, of 2 officers and 64 men. The Asiatic regiments in war all have

mounted scouting detachments. In Siberia, they consist of 3 officers and 150 men.

The battalion: The typical battalion has four companies.

The company: War strength, commanded by a captain, not mounted, 3 lieutenants, 20 noncommissioned officers, 217 men; total, 4 officers and 237 men. Normal peace strength; 3 or 4 officers, 7 noncommissioned officers, 2 drummers, 100 men.

Machine-gun company: War strength, 3 officers mounted, 45 men, 30 horses, 4 pieces. Peace strength, 3 officers mounted, 25 men, 10 horses, 2 pieces. One company to each regiment greatly increased.

The Cavalry Division: Two brigades; 1 horse machine-gun company; 1 horse artillery section. Fighting strength: 3,600 sabers, 8 machine guns, 12 guns.

The cavalry brigade: Two regiments of six squadrons each.

The regiment: In peace and war there are 68 cavalry "horse" regiments and 2 half regiments, with 404 squadrons and sotnias. The 4 guard cuirassier regiments have 4 squadrons each, and the other cavalry regiments 6 squadrons.

The tactical unit of cavalry is the squadron or sotnia of 4 platoons. The command unit is the regiment or half regiment.

The graduates of infantry and cavalry can,

upon leaving their special schools, continue for a third year in the artillery and engineer school, and thus enter these arms.

Military Schools: In addition to the schools before mentioned the government maintains a war college at Petrograd for the education of General Staff officers; a topographical school for training officers who belong to the topographical section of the General Staff; an intendance school; an artillery academy; an engineer academy; a medical academy; a law academy; an electro-technical school; and a number of schools for the instruction of noncommissioned officers. For the further training of officers in schools of application, there is maintained a school for infantry fire; a school for field artillery; a school for equitation for cavalry; and an aeronautical school.

Spain

Population, 20,000,000. Military service universal. Peace strength, approximately 122,000. War strength in early stages of war, 320,000. Total strength in available men, approximately, 2,800,000. Budget, $37,500,000.

The period of service is from 20 to 38. Three years with the colors, three in the reserves, and six in the second-class reserves. There is also liability to military service thereafter for six years in the territorial service.

Exemptions are easily purchased, $292 when drawn for home service, and $390 when drawn for foreign service.

The people are hardy and make good soldiers. Their organization follows the general European type.

There is a military academy at Toledo for infantry, at Segovia for artillery, at Valladolid for cavalry, at Avila for supply department, and at the Escorial for carabineers. There is also a staff college, known as the Superior School of War, at Madrid. The technical training of the Spanish army is very good. General Staff system is well developed and follows the general lines of the general staffs in the larger European armies.

Serbia

Population, approximately 3,000,000. Military service universal. Peace strength, approximately 120,000. War strength, approximately 360,000. Total available strength, 450,000. Budget, $1,000,000.

Service extends from the twenty-first to the forty-fifth year. Every physically fit male citizen is a member of the Landsturm from the age of 17 to 21 and from 45 to 50.

Very few exemptions from service are granted. The national army consists of three bans or classes.

The organization follows the general European model. The people are hardy, and make good soldiers.

Sweden

Population, 5,700,000. Universal military service. Peace strength: about 85,000 men are annually trained as recruits or recalled for training. Permanent cadres, number about 23,000. Immediate war strength, 380,000, approximate. Total war strength, about 750,000 to 800,000 men. Budget, $13,500,000.

The age of service is from 21 to 40, for all who are physically fit. During this period the men serve eight years in the first line, four in the second, and eight in the reserves. The men serve in time of peace a total of 240 days in the infantry, position artillery, fortress artillery, fortress engineers and the army service corps; and a total of 365 days in the cavalry field artillery, field engineers and field telegraph corps.

The organization follows the general European line. There is a well-developed general staff. The people are hardy and make good soldiers. The army is well equipped.

Switzerland[1]

"The independence of the Swiss Confederation rests not upon assurances or promises of emperors or kings, it rests on a foundation of iron—that of our swords."

[1] See Appendix 3.

The Swiss Confederation consists of a number of small districts, different in many essential particulars and gathered about a common center, at first for the common defense against the common enemy, the Hapsburgs.

Political boundaries do not coincide with those of blood or nature. Some of the cantons are outside of the great national boundaries. Ticino is to the south of the main range of the Alps and its population largely Italian. A considerable portion of Grisona is east of the Rhine and the range separating it from the Tyrol. Porrentruy is far down the Jura's western slope and is on the French plain. Schaffhausen is north of the Rhine.

All of these areas are outside the limits of the original Confederation. The physical geography may be roughly described as consisting of two great trenches, traversed by two large rivers and inclosed by two great mountain masses, the large valley of the Aar and a smaller one of the Thur.

In this natural fortress have collected, little by little, the elements of the present Swiss Confederation.

The area of Switzerland is approximately 16,000 square miles, about one-third the area of the island of Cuba. About 71 per cent of the land is available for hardy agriculture. This area is distributed over four great river basins:

the Rhine with about 11,000 square miles; the Rhone with approximately 3,000; the Po and the Inn with 1,350 and 721 square miles of area respectively.

Swiss history is essentially the drawing together of small fragments of the imperial kingdoms of Germany, Italy, and Burgundy for defense against the Hapsburgs. Around the German nucleus, the three forest districts or cantons gradually gathered other German elements, for the Confederation was German until 1803 to 1815, when the French and Italian subjects obtained political equality with the earlier German elements. Switzerland won practical independence in 1499 and formal recognition in 1648.

Swiss history falls into five natural divisions:

First. The beginnings of the Confederation up to August 1, 1291.

Second. The gradual striking off of the control of the Hapsburgs up to 1394 to 1474.

Third. The shaking off of the dependence on the empire up to 1499.

Fourth. A period of religious divisions and French influence up to 1814.

Fifth. The establishment of the independent state as embodied in the constitution of 1848 and 1874.

The claim that military training and preparedness builds up a warlike spirit and promotes militarism is effectually answered by pointing to

Switzerland. No country in the world is less military or gives less evidence to the casual observer of having attained a thorough degree of organized military preparedness—a preparedness which is not only material, but even to a greater degree moral. Each and every citizen of the Swiss Republic has had impressed upon him from his earliest youth an appreciation of his individual, unavoidable obligation to the state, whenever and however his services may be needed; a sense of obligation so strong, so deep-rooted, that any young Swiss, unless physically disabled, would feel that he had dishonored himself had he not rigidly and faithfully prepared to discharge his military obligation. There is no smug spirit of satisfaction in having avoided the military obligation that one so often finds in the undesirable elements in this country—undesirable in that they have no sense of obligation for service to the nation in time of war, appreciation of the value of that kind of citizenship which places national service before personal safety and the interference with personal interest. The Swiss is proud of his uniform, devoted to his country, a real lover of liberty, and a citizen of a real democracy—a democracy in which any man who proposed to hire another to do his military service for him would be dishonored in the eyes of his fellow citizens, unless physically so disabled that he could not render service.

August 1, 1291, in the valley of the Uri, the rugged mountaineers, huntsmen, sheep herders, and farmers formed what was called the "Everlasting League," an alliance against all who might attack them. Here we find the first solid beginnings of the present Swiss Confederation. The league was formed after a most solemn and binding agreement to stand together against the common enemy, which, at that particular moment, happened to be Austria.

Universal service in those remote days was, to a large extent, the accepted policy of the Swiss people. The nation decreed the obligation for universal service on the part of all who were physically and mentally fit.

It is true that there was at this time, no well-developed system; the complete organization of to-day was lacking. From this crude beginning has grown, little by little, the present Swiss system—a system of universal service, a system under which the responsibilities and hardships go hand in hand with the blessings and benefits of citizenship; in other words, a system of universal service in a pure democracy established and existing by the will and with the full approval of the vast majority of the people, an approval based upon long experience and a full appreciation of the fact that justice and uprightness are not sufficient to protect a people against aggression.

Switzerland is a small country, with relatively little arable land and with a population of approximately four millions. The government is largely vested in two legislative bodies, forming a Federal Assembly. One, the National Council, corresponds somewhat to our House of Representatives. Its membership consists of representatives elected one to each twenty thousand of the population. The other body corresponds somewhat to our Senate, and has two members from each of the twenty-two cantons. This body is announced as the State Council. These two legislative assemblies meet jointly to elect a Federal Council of seven members. This council selects one of its members to serve as president for a term of three years; the one selected cannot succeed himself. One member of the Federal Council is designated as the head of the military establishment. He is assisted by a body of technical advisers, consisting of the chief of the General Staff with his subordinates and assistants, representing the various arms of the service. These are the military experts and are collectively, the instrumentality through which command of the army is intelligently exercised and its efficiency maintained.

The two houses in joint session elect also the Federal Court.

About 70 per cent of the Swiss people speak German, two-thirds of the remainder French.

and the rest Italian. All these languages are used in legislative assemblies. In each canton the official language is that spoken in the canton. The lower body of the national house consists of about 250 members. Modifications or abolitions of provisions of the constitution are considered, on petition signed by 50,000 voters. In the old Landsgemeinde all adult males, sound of mind and not of a criminal class, took a direct part in passing upon all affairs of the nation. From it has grown the present system of representative government.

In 1912 legislation was enacted which prohibits any employer from placing at a disadvantage any one in his employ because of absence on account of his legitimate military duty.

In 1848 the Federal constitution provided that every man was bound in some form for military service. Gradually, the military establishment had been built up until in 1853 it reached a strength of about 115,000 men, including the active and reserve list. In 1866 it was increased to approximately 200,000. Systematic military training was developed to an extent not before attempted. In 1874 Federal control of the military establishment became more strongly developed, replacing in many particulars control of details by the cantons, and the force became a strictly Federal force. Strict rules were laid down by the central government by which the

cantons appoint only such officers as come up to Federal requirements and standards.

In 1886 there was a strong reaction incident to large expenditures and to the idle talk of world's peace, pacifists' propaganda, etc., etc. This condition, however, gradually gave way to a return to reason; and in November, 1907, the present military law was enacted by an immense majority. The Swiss army at the outbreak of the present war consisted of six complete divisions with certain auxiliary troops and the necessary supply and technical departments.

The Swiss people are keenly alive, not only to their military obligations, but also to their civic responsibilities. The right to vote is coupled in many cantons with the obligation to do so, and in every canton with the obligation on the part of all men who are within the age limit and physically fit to serve in the defense of the country in some capacity or other whenever their services may be needed.

The keenest rivalry exists between the cantons as to which will have the highest percentage of their youth accepted as recruits. Approximately 73 per cent of those presenting themselves are accepted. Approximately 4 per cent are found totally deficient and are promptly excused. The remaining 23 per cent are returned for further training and development and again present themselves for examination the following year. So

keen is the rivalry in the cantons that many night schools are established where the youth from 17 to 19 receive a minimum instruction of 64 hours a year in order that they may be better prepared to pass the examination.

A complete record of each man is kept, a record of his recruit service, service at various camps of instruction, his qualifications, etc., so that the Government is in possession of full data concerning every man in the military establishment. The man himself is furnished a copy of these reports; in fact, he has a book which contains a copy of the information in the main record.

In addition to the rifle clubs above mentioned there are all kinds of national and cantonal shooting competitions. To be a master shot, one must make 75 bull's-eyes out of 100 shots in an 8-inch circle at 330 yards, kneeling. The effect of this general training is shown by the success of the Swiss in various international shoots, the Swiss team having won 17 out of 18.

All officers must have had the basic training. All must have served as privates and as noncommissioned officers. Recruits who show especial aptitude and demonstrate military qualities, are required to attend a school for noncommissioned officers, where they are put through a very severe course of instruction intended to try out the man thoroughly. This course usually lasts 30 days.

After serving two or three periods as a corporal, he may become a sergeant. Corporals who possess very special qualifications are taken into a class for aspirant officers. If the aspirant makes good and becomes an aspirant officer, he receives 80 days of additional training for infantry and 105 for cavalry and artillery in order to reach the grade of second lieutenant. His recruit service, service as a noncommissioned officer at one encampment, his special training of 80 days plus the additional period before he is regularly listed as a second lieutenant makes a total of 313 days' service to qualify as a second lieutenant of infantry. He must serve approximately four years before he can be promoted to the grade of first lieutenant. Here again he undergoes a period of further training. He usually serves four years in the grade of first lieutenant before he reaches the grade of captain; captains are selected for merit. Promotion above the grade of captain is almost wholly by selection.

To sum up, the Swiss system is built up as follows:

First: A thorough training of the school teacher, so that he may be able to give intelligent and progressive instruction in calisthenics of the type necessary to fit the boy for his military service, and in addition, give elementary instruction in the simple military movements and marching formations.

Second: Compulsory gymnastics. Compulsory gymnastics form a very important feature of school training. This course begins with boys of 7 years and is compulsory in public and private schools, according to the existing law. Only those are excused who are physically unable to take the exercises. First grade is from 7 to 9, inclusive; second grade from 10 to 12; third grade from 13 to the end of the school period. These exercises are simple but carefully thought out and require no expensive apparatus. Instruction in calisthenics is carried on throughout the entire school year; at least two hours must be devoted to this work each week. In the larger schools, special instructors in calisthenics are sometimes employed; in secondary schools, this is the rule. The work is well done, as the teachers themselves are thoroughly grounded, having been required to pass a rigid examination. Here again we find the state taking an intelligent and proper interest in building up the coming citizen, so that he may be fit. Girls also receive this training within certain limits. The object is a good body, well developed, a sound heart, well-developed lungs, proper carriage, knowledge of how to walk, and an upstanding, well-developed, all-round physique.

The General Staff is organized very much on the lines of the German General Staff. The General Staff has a school for training officers for the

General Staff. The work is thorough. The pay of men and officers is very small, for military service is looked upon as part of the citizen's obligation, even professional officers receiving modest salaries. The cost of the first-line soldier is about $30 a year to the state; the second and third line very little. During field maneuvers, the fields and lands of all citizens may be used, damages being paid for by the government. Citizens are also required to furnish shelter and room for men and animals belonging to the army under certain conditions.[1]

Turkey

Population (of the entire empire, including Egypt and other areas nominally under Turkish control), approximately 37,500,000. Population of areas directly under Turkish control, 26,000,000. Peace strength of the army, 230,000. War strength, approximately, 1,200,000.

Organization is of the German type. Prior to 1910 military service was obligatory upon all Mussulmans only. Christians were exempted, but required to pay a military tax. Since 1910 military service is obligatory for all Ottomans between the ages of 20 and 40 years.

Service is divided into three periods: (1) Active service (Muasaff) nine years, of which three are with the colors in the case of infantry; four

[1] See Swiss Military Laws, Appendix 3.

with the cavalry and artillery; six and five respectively in the reserve of the first line; (2) the Landwehr (Redif) nine years; (3) Territorial Reserve (Mustahfiz) two years.

In case of extreme necessity all males up to 70 years of age may be called for the colors. There are certain recognized exemptions from military service, officials of the court, certain state officials, and certain students.

Turkey presents many hardy and warlike peoples. They lend themselves readily to military training, and when well led and well equipped make excellent soldiers. The Turkish war-making power on a large scale under modern conditions depends very largely upon their ability to secure ample supplies from outside nations. Turkey is not prepared or equipped to make either arms or ammunition on a large scale to carry on modern warfare.

The total force which could be raised in case munitions were available and circumstances permitted is about 3,500,000.

Appendix I

Colleges of Agriculture and the Mechanic Arts

Alabama Polytechnic Institute.
University of Arizona.
University of Arkansas.
University of California.
Colorado Agricultural College.
Connecticut Agricultural College.
Delaware College.
University of Florida.
Georgia State College of Agriculture.
College of Agriculture and Mechanic Arts of the Territory of Hawaii.
University of Idaho.
University of Illinois.
Purdue University (Indiana).
Iowa State College of Agriculture and Mechanic Arts.
Kansas State Agricultural College.
State University of Kentucky.
Louisiana State University and Agricultural and Mechanical College.
University of Maine.
Maryland Agricultural College.
Massachusetts Agricultural College.
Massachusetts Institute of Technology.
Michigan Agricultural College.
University of Minnesota.
Mississippi Agricultural and Mechanical College.
University of Missouri.
Missouri School of Mines and Metallurgy.
Montana College of Agriculture and Mechanic Arts.
University of Nebraska.

University of Nevada.
New Hampshire College of Agriculture and Mechanic Arts.
Rutgers Scientific School (New Jersey).
New Mexico College of Agriculture and Mechanic Arts.
Cornell University (New York).
North Carolina College of Agriculture and Mechanic Arts.
North Dakota Agricultural College.
Ohio State University.
Oklahoma Agricultural and Mechanical College.
Oregon Agricultural College.
Pennsylvania State College.
University of Porto Rico.
Rhode Island State College.
Clemson Agricultural College (South Carolina).
South Dakota College of Agriculture and Mechanic Arts.
University of Tennessee.
Agricultural and Mechanical College of Texas.
Agricultural College of Utah.
University of Vermont and State Agricultural College.
Virginia Agricultural and Mechanical College and Polytechnic Institute.
State College of Washington.
West Virginia University.
University of Wisconsin.
University of Wyoming.

Colleges of Agriculture and the Mechanic Arts for the Colored Race

Agricultural and Mechanical College for Negroes (Alabama).
Branch Normal College (Arkansas).
State College for Colored Students (Delaware).
Florida Agricultural and Mechanical College for Negroes.

Georgia State Industrial College.
Kentucky Normal and Industrial Institute for Colored Persons.
Southern University and Agricultural and Mechanical College (Louisiana).
Princess Anne Academy (Maryland).
Alcorn Agricultural and Mechanical College (Mississippi).
Lincoln Institute (Missouri).
Agricultural and Mechanical College for the Colored Race (North Carolina).
Colored Agricultural and Normal University (Oklahoma).
Colored Normal, Industrial, Agricultural and Mechanical College (South Carolina).
Prairie View State Normal and Industrial College (Texas).
Hampton Normal and Agricultural Institute (Virginia).
West Virginia Colored Institute.

With a total of approximately 27,000 students, of whom about 2,424 are in colleges for the colored race. The total number of students in institutions at which officers of the army are on duty, is approximately 33,000. There are also many thousands of students receiving military instruction at schools at which officers of the army are not detailed, bringing the number in all probability up to about 40,000.

Civil Institutions of Learning Other Than Land Grant

Arkansas: Ouachita College, Arkadelphia, Ark.
California: The Harvard School, Los Angeles, Cal.
Georgia: Georgia Military Academy, College Park, Ga.
Georgia Military College, Milledgeville, Ga.

Georgia: Gordon Institute, Barnesville, Ga.
Marist College, Atlanta, Ga.
Riverside Military Academy, Gainesville, Ga.
Hawaii Territory: The Kamehameha Schools, Honolulu, H. T.
Illinois: Western Military Academy, Alton, Ill.
Indiana: Concordia College, Fort Wayne, Ind.
Culver Military Academy, Culver, Ind.
University of Notre Dame, Notre Dame, Ind.
Kentucky: Kentucky Military Institute, Summer Session in Lyndon, Kentucky, and Winter Home in Eau Gallie, Fla.
Maryland: St. John's College, Annapolis, Md.
Minnesota: College of St. Thomas, St. Paul, Minn.
Shattuck School, Faribault, Minn.
Missouri: Kemper Military School, Boonville, Mo.
Wentworth Military Academy, Lexington, Mo.
New Mexico: New Mexico Military Institute, Roswell, N. M.
New York: College of St. Francis Xavier, New York.
The Manlius Schools, New York.
Verbeck Hall, N. Y.
New York Military Academy, Cornwall-on-Hudson, N. Y.
North Carolina: The Bingham School, Asheville, N. C.
Ohio: Ohio Northern University, Ada, Ohio.
Wilberforce University, Wilberforce, Ohio.
Pennsylvania: Pennsylvania Military College, Chester, Pa.
South Carolina: Bailey Military Institute, Greenwood, S. C.
The Citadel, Charleston, S. C.
Tennessee: Columbia Military Academy, Columbia, Tenn.
Sewanee Military Academy, Sewanee, Tenn.
Tennessee Military Institute, Sweetwater, Tenn.
Texas: The Peacock Military College, San Antonio, Tex.
The West Texas Military Academy, San Antonio, Tex.

Vermont: Norwich University, Northfield, Vt.
Virginia: Fork Union Military Academy, Fork Union, Va.
Staunton Military Academy, Staunton, Va.
Virginia Military Institute, Lexington, Va.
Washington: University of Washington, Seattle, Wash.
Wisconsin: The Northwestern Military and Naval Academy, Lake Geneva, Wis.
St. John's Military Academy, Delafield, Wis.

Retired officers of the army are detailed to the following institutions of the school class as professors of military science and tactics:

California: The Hitchcock Military Academy, San Rafael, Cal.
Mount Tamalpais Military Academy, San Rafael, Cal.
St. Matthew's Military School, Burlingame, Cal.
Missouri: Missouri Military Academy, Mexico, Mo.
New Jersey: Wenonah Military Academy, Wenonah, N. J.
Ohio: Miami Military Institute, Germantown, Ohio.

Honor Colleges for 1916

University of California, Berkeley, Cal.
Cornell University, Ithaca, N. Y.
University of Illinois, Urbana, Ill.
Kansas State Agricultural College, Manhattan, Kans.
University of Minnesota, Minneapolis, Minn.
University of Missouri, Columbia, Mo.
Norwich University, Northfield, Vt.
Ohio State University, Columbus, Ohio.
St. John's College, Annapolis, Md.
The Citadel, Charleston, S. C.
Agricultural and Mechanical College of Texas, College Station, Tex.

University of Vermont and State Agricultural College, Burlington, Vt.
Virginia Military Institute, Lexington, Va.
State College of Washington, Pullman, Wash.
University of Wisconsin, Madison, Wis.

Honor Schools

Culver Military Academy, Culver, Ind.
Kemper Military School, Boonville, Mo.
Kentucky Military Institute, Lyndon, Ky.
New Mexico Military Institute, Roswell, N. Mex.
New York Military Academy, Cornwall-on-Hudson, N. Y.
St. John's Military Academy, Delafield, Wis.
St. John's School, Manlius, N. Y.
College of St. Thomas, St. Paul, Minn.
Wentworth Military Academy, Lexington, Mo.
Western Military Academy, Alton, Ill.

Appendix II

General Orders, No. 32

War Department, Washington, July 28, 1916.

The following provisions of an act approved June 3, 1916, "For making further and more effectual provisions for the national defense, and for other purposes," and regulations prescribed by the President to carry the same into effect are published for the information and guidance of all concerned:

"Sec. 37. *The Officers' Reserve Corps.*—For the purpose of securing a reserve of officers available for service as temporary officers in the Regular Army, as provided for in this Act and in section eight of the Act approved April twenty-fifth, nineteen hundred and fourteen, as officers of the Quartermaster Corps and other staff corps and departments, as officers for recruit rendezvous and depots, and as officers of volunteers, there shall be organized, under such rules and regulations as the President may prescribe not inconsistent with the provisions of this Act, an Officers' Reserve Corps of the Regular Army. Said corps shall consist of sections corresponding to the various arms, staff corps, and departments of the Regular Army. Except as otherwise herein provided, a member of the Officers' Reserve Corps shall not be subject to call for service in time of peace, and whenever called upon for service shall not, without his consent, be so called in a lower grade than that held by him in said reserve corps.

"The President alone shall be authorized to appoint and commission as reserve officers in the various sections of the Officers' Reserve Corps, in all grades up to and including that of major, such citizens as, upon examination prescribed by the President, shall be found physically, mentally, and morally qualified to hold such commissions: *Provided,* That the proportion of officers

in any section of the Officers' Reserve Corps shall not exceed the proportion for the same grade in the corresponding arm, corps, or department of the Regular Army, except that the number commissioned in the lowest authorized grade in any section of the Officers' Reserve Corps shall not be limited.

"All persons now carried as duly qualified and registered pursuant to section twenty-three of the Act of Congress approved January twenty-first, nineteen hundred and three, shall, for a period of three years after the passage of this Act, be eligible for appointment in the Officers' Reserve Corps in the section corresponding to the arm, corps, or department for which they have been found qualified, without further examination, except a physical examination, and subject to the limitations as to age and rank herein prescribed: *Provided,* That any person carried as qualified and registered in the grade of colonel or lieutenant colonel pursuant to the provisions of said Act on the date when this Act becomes effective may be commissioned and recommissioned in the Officers' Reserve Corps with the rank for which he has been found qualified and registered, but when such person thereafter shall become separated from the Officers' Reserve Corps for any reason the vacancy so caused shall not be filled, and such office shall cease and determine.

"No person shall, except as hereinafter provided, be appointed or reappointed a second lieutenant in the Officers' Reserve Corps after he shall have reached the age of thirty-two years, a first lieutenant after he shall have reached the age of thirty-six years, a captain after he shall have reached the age of forty years, or a major after he shall have reached the age of forty-five years. When an officer of the Reserve Corps shall reach the age limit fixed for appointment or reappointment in the grade in which commissioned he shall be honorably discharged from the service of the United States, and be entitled to retain his official title and, on occasions of ceremony, to wear the uniform of the highest grade he shall have held in the Officers' Reserve Corps: *Pro-*

vided, That nothing in the foregoing provisions as to the ages of officers shall apply to the appointment or reappointment of officers of the Quartermaster, Engineer, Ordnance, Signal, Judge Advocate, and Medical sections of said Reserve Corps.

"One year after the passage of this Act the Medical Reserve Corps, as now constituted by law, shall cease to exist. Members thereof may be commissioned in the Officers' Reserve Corps, subject to the provisions of this Act, or may be honorably discharged from the service. The Secretary of War may, in time of peace, order first lieutenants of the medical section of the Officers' Reserve Corps, with their consent, to active duty in the service of the United States in such numbers as the public interests may require and the funds appropriated may permit, and may relieve them from such duty when their services are no longer necessary. While on such duty they shall receive the pay and allowances, including pay for periods of sickness and leaves of absence, of officers of corresponding rank and length of active service in the Regular Army.

"The commissions of all officers of the Officers' Reserve Corps shall be in force for a period of five years unless sooner terminated in the discretion of the President. Such officers may be recommissioned, either in the same or higher grades, for successive periods of five years, subject to such examinations and qualifications as the President may prescribe and to the age limits prescribed herein: *Provided*, That officers of the Officers' Reserve Corps shall have rank therein in the various sections of said Reserve Corps according to grades and to length of service in their grades.

"SEC. 38. *The Officers' Reserve Corps in war.*—In time of actual or threatened hostilities the President may order officers of the Officers' Reserve Corps, subject to such subsequent physical examinations as he may prescribe, to temporary duty with the Regular Army in grades thereof which cannot, for the time being, be filled by promotion, or as officers in volunteer or other organizations that may be authorized by law,

or as officers at recruit rendezvous and depots, or on such other duty as the President may prescribe. While such reserve officers are on such service they shall, by virtue of their commissions as reserve officers, exercise command appropriate to their grade and rank in the organizations to which they may be assigned, and shall be entitled to the pay and allowances of the corresponding grades in the Regular Army, with increase of pay for length of active service, as allowed by law for officers of the Regular Army, from the date upon which they shall be required by the terms of their orders to obey the same: *Provided,* That officers so ordered to active service shall take temporary rank among themselves, and in their grades in the organizations to which assigned, according to the dates of orders placing them on active service; and they may be promoted, in accordance with such rank, to vacancies in volunteer organizations or to temporary vacancies in the Regular Army thereafter occurring in the organizations in which they shall be serving: *Provided further,* That officers of the Officers' Reserve Corps shall not be entitled to retirement or retired pay, and shall be entitled to pension only for disability incurred in the line of duty and while in active service.

"Any officer who, while holding a commission in the Officers' Reserve Corps, shall be ordered to active service by the Secretary of War shall, from the time he shall be required by the terms of his order to obey the same, be subject to the laws and regulations for the government of the Army of the United States, in so far as they are applicable to officers whose permanent retention in the military service is not contemplated.

"Sec. 39. *Instruction of officers of the Officers' Reserve Corps.*—To the extent provided for from time to time by appropriations for this specific purpose, the Secretary of War is authorized to order reserve officers to duty with troops or at field exercises, or for instruction, for periods not to exceed fifteen days in any one calendar year, and while so serving such officers shall receive the pay and allowances of their respective grades

in the Regular Army: *Provided,* That, with the consent of the reserve officers concerned, and within the limit of funds available for the purpose, such periods of duty may be extended for reserve officers as the Secretary of War may direct: *Provided further,* That in time of actual or threatened hostilities, after all available officers of any section of the Officers' Reserve Corps corresponding to any arm, corps, or department of the Regular Army shall have been ordered into active service, officers of Volunteers may be appointed in such arm, corps, or department as may be authorized by law: *Provided further,* That nothing herein shall operate to prevent the appointment of any officer of the Regular Army as an officer of Volunteers before all the officers of the Officers' Reserve Corps or any section thereof shall have been ordered into active service: *And provided further,* That in determining the relative rank and the right to retirement of an officer of the Regular Army, active duty performed by him while serving in the Officers' Reserve Corps shall not be reckoned.

"SEC. 40. *The Reserve Officers' Training Corps.*— The President is hereby authorized to establish and maintain in civil educational institutions a Reserve Officers' Training Corps, which shall consist of a senior division organized at universities and colleges requiring four years of collegiate study for a degree, including State universities and those State institutions that are required to provide instruction in military tactics under the provisions of the Act of Congress of July second, eighteen hundred and sixty-two, donating lands for the establishment of colleges where the leading object shall be practical instruction in agriculture and the mechanic arts, including military tactics, and a junior division organized at all other public or private educational institutions, except that units of the senior division may be organized at those essentially military schools which do not confer an academic degree but which, as a result of the annual inspection of such institutions by the War Department, are specially designated by the Secretary of War as qualified for units of the senior division,

and each division shall consist of units of the several arms or corps in such number and of such strength as the President may prescribe."

. . . . . .

"SEC. 49. The President alone, under such regulations as he may prescribe, is hereby authorized to appoint in the Officers' Reserve Corps any graduate of the senior division of the Reserve Officers' Training Corps who shall have satisfactorily completed the further training provided for in section fifty of this Act, or any graduate of the junior division who shall have satisfactorily completed the courses of military training prescribed for the senior division and the further training provided for in section fifty of this Act, and shall have participated in such practical instruction subsequent to graduation as the Secretary of War shall prescribe, who shall have arrived at the age of twenty-one years and who shall agree, under oath in writing, to serve the United States in the capacity of a reserve officer of the Army during a period of at least ten years from the date of his appointment as such reserve officer, unless sooner discharged by proper authority; but the total number of reserve officers so appointed shall not exceed fifty thousand: *Provided*, That any graduate qualified under the provisions of this section undergoing a postgraduate course at any institution shall not be eligible for appointment as a reserve officer while undergoing such postgraduate course, but his ultimate eligibility upon completion of such postgraduate course for such appointment shall not be affected because of his having undergone such postgraduate course."

. . . . . .

"SEC. 51. Any physically fit male citizen of the United States, between the ages of twenty-one and twenty-seven years, who shall have graduated prior to the date of this Act from any educational institution at which an officer of the Army was detailed as professor of military science and tactics, and who, while a student at such institution, completed courses of military training under the direction of such professor of military

science and tactics substantially equivalent to those prescribed pursuant to this Act for the senior division, shall, after satisfactorily completing such additional practical military training as the Secretary of War shall prescribe, be eligible for appointment to the Officers' Reserve Corps and as a tempory additional second lieutenant in accordance with the terms of this Act.

"SEC. 52. The President alone is hereby authorized to appoint and commission as a temporary second lieutenant of the Regular Army in time of peace for purposes of instruction, for a period not exceeding six months, with the allowances now provided by law for that grade, but with pay at the rate of $100 per month, any reserve officer appointed pursuant to sections forty-nine and fifty-one of this Act and to attach him to a unit of the Regular Army for duty and training during the period covered by his appointment as such temporary second lieutenant, and upon the expiration of such service with the Regular Army such officer shall revert to his status as a reserve officer.

"SEC. 53. No reserve officer or temporary second lieutenant appointed pursuant to this Act shall be entitled to retirement or to retired pay and shall be eligible for pension only for disability incurred in line of duty in active service or while serving with the Regular Army pursuant to the provisions of this Act: *Provided*, That in time of war the President may order reserve officers appointed under the provisions of this Act to active duty with any of the military forces of the United States in any grades not below that of second lieutenant, and while on such active duty they shall be subject to the Rules and Articles of War: *And provided further*, That the Adjutant General of the Army shall, under the direction and supervision of the Secretary of War, obtain, compile, and keep continually up to date all obtainable information as to the names, ages, addresses, occupations, and qualifications for appointment as commissioned officers of the Army, in time of war or other emergency, of men of suitable ages who, by reason of having received mili-

tary training in civilian educational institutions or elsewhere, may be regarded as qualified and available for appointment as such commissioned officers."

1. (*a*) The sections of the Officers' Reserve Corps shall be designated as follows:

1. Infantry Officers' Reserve Corps.
2. Cavalry Officers' Reserve Corps.
3. Field Artillery Officers' Reserve Corps.
4. Coast Artillery Officers' Reserve Corps.
5. Medical (to include the reserve officers of the Medical Corps, Dental Corps, and Veterinary Corps) Officers' Reserve Corps.
6. Adjutant General's Officers' Reserve Corps.
7. Judge Advocate General's Officers' Reserve Corps.
8. Inspector General's Officers' Reserve Corps.
9. Quartermaster Officers' Reserve Corps.
10. Engineer Officers' Reserve Corps.
11. Ordnance Officers' Reserve Corps.
12. Signal Officers' Reserve Corps.

(*b*) The grades and numbers that may be commissioned in them under the provisions of this act are, with the exceptions noted herein of those previously listed as qualified for commissions in the Volunteers under the act of January 21, 1903, as follows:

	Majors	Capts.	First lieutenants	Second lieutenants
Infantry	A[1]	A	A	B[2]
Cavalry	A	A	A	B
Field Artillery	A	A	A	B
Coast Artillery	A	A	A	B
Medical	A	A	A	B
Adjutant General's	B	..	..	..
Judge Advocate General's	B	..	..	..
Inspector General's	B	..	..	..
Quartermaster	A	A	..	B
Engineer	A	A	A	B
Ordnance	A	A	B	..
Signal	A	A	B	..

[1] A means the proportion in the indicated grade shall not exceed the proportion for the same grade in the corresponding arm, staff corps, or department of the Regular Army.

[2] B means maximum number is unlimited.

Appendix

Applicants commissioned in the Officers' Reserve Corps will rank in the various sections according to grades and to length of service in their grades. Commissions will be issued for periods of five years. When an officer of the Reserve Corps shall reach the age limit fixed for appointment or reappointment in the grade in which commissioned, he shall be honorably discharged from the service of the United States unless recommissioned in a higher grade subject to examination and qualifications as prescribed by the President.

Graduates of the Reserve Officers' Training Corps appointed additional temporary second lieutenants of the Regular Army for purposes of instruction, and other members of the Officers' Reserve Corps who, with their consent, have been given training with troops or at field exercises in excess of 15 days in any one calendar year may be examined at the conclusion thereof for higher grades in their own or other sections.

In time of actual or threatened hostilities the President may order members of the Officers' Reserve Corps, subject to physical examination, to temporary duty with the Regular Army, or as officers in volunteer or other organizations that may be authorized by law, or as officers at recruit rendezvous and depots or on other duty. They shall take temporary rank among themselves and in their grades in the organizations to which assigned, according to the dates of orders placing them on active service. They may be promoted to vacancies in volunteer organizations or to temporary vacancies in the Regular Army, as prescribed in the act.

Department commanders when authorized by the President may attach members of the Officers' Reserve Corps under their orders on mobilization to detachments and units of the Regular Army Reserve or the Enlisted Reserve Corps until notice of any other assignment to duty of such officers by the President has been received.

A printed roster will be issued by The Adjutant General showing name, rank, and address of all reserve officers.

Reserve officers will report at once any change of address to the adjutant of the military department in which they live or to the heads of the staff corps or department concerned. The authority so notified will inform the Adjutant General. If a change of residence to another military department is involved, the adjutant of such department will be notified.

Department commanders when authorized by the Secretary of War may order reserve officers of their departments to duty with troops in the field or at field exercises or for instruction for periods not to exceed 15 days in any one calendar year. These periods will not be extended except with the consent of the reserve officers concerned. The pay and allowances of reserve officers called to such duties shall be paid out of allotments made available for the purpose.

Heads of staff corps and departments when authorized by the Secretary of War may order to duty reserve officers of their corps or departments not called out by the commanders of military departments as provided above for instruction for periods not to exceed, unless with the consent of the officers concerned, 15 days in any calendar year.

The policy of training will be fixed by the Secretary of War on recommendation of the General Staff.

The examinations shall be especially directed to ascertain the practical capacity of the applicant, and the record of previous service and training of the applicant shall be considered as a part of the examination.

. . . . . .

EXAMINATIONS FOR RESERVE OFFICER

Infantry.

For captains, first lieutenants, and second lieutenants.

Administration (oral).—Army Regulations and important general orders, in the discretion of the board, special attention being paid to Articles I-XXIII, inclu-

sive, XXIX-XXXIII, inclusive, and Articles XXXIX, XL, LIII, LV, and LX.

Drill Regulations (practical).—School of the Soldier; School of the Squad; and School of the Company.

Field Service Regulations (oral).—Service of Information. Service of Security. Marches. Shelter.

Tables of Organization to include the company.

Small-arms Firing Regulations (oral).—Theoretical principles. Estimating distances.

Military law (oral).—Manual of Courts-Martial (official).

Topography (practical).—Making of a topographical map. Map reading.

FOR MAJORS.

The examination of applicants for positions as majors of Infantry will be the same as that prescribed for company officers, adding thereto:

Drill Regulations (practical and oral).—Parts I, II, III, and IV, Infantry Drill Regulations.

Field Service Regulations (oral).—Entire text.

Tables of Organization to include the Infantry regiment.

Military law (oral).—The law of war. Civil functions and relations of the military. Instructions for the government of armies of the United States in the field (Rules of Land Warfare; General Orders, Nos. 4 and 52, A. G. O., 1902, and Circular No. 65, W. D., 1907).

CAVALRY.

FOR CAPTAINS, FIRST LIEUTENANTS, AND SECOND LIEUTENANTS.

Administration (oral).—Same as for Infantry.

Drill Regulations (practical).—School of the Soldier. School of the Trooper. The troop.

Field Service Regulations—Tables of Organizations, to include the Troop—Small-arms Firing Regulations,

Field Service Regulations—Tables of Organizations, to include the Troop—Small-arms Firing Regu

lations, Military law, and Topography.—Same as for Infantry.

Hippology (oral).—The Cavalry horse: Nomenclature; conformation; examination for soundness; age of horses; endurance of horses. Bits, biting, and training; saddles; seats; transportation of horses; the horse's foot; stable management; forage.

FOR MAJORS.

The examination will be the same as for troop officers, adding thereto:

Drill Regulations (practical and oral).—The squadron, including extended order. The regiment, including extended order. Employment of Cavalry.

Field Service Regulations and Military law (oral).—Same as for majors of Infantry. Tables of Organization to include Cavalry regiment.

FIELD ARTILLERY.

FOR SECOND LIEUTENANTS.

Adminstration (oral).—Same as for Infantry.

Field Artillery Drill Regulations (practical and oral).—The soldier, dismounted; the battery, dismounted; the cannoneer; the gun squad; the firing battery, preparation and conduct of fire; the driver; the battery, mounted.

Field Service Regulations, Small-arms Firing Regulations, Manual of Guard Duty, Military law, and Topography.—Same as for Infantry. Tables of Organization to include the battery.

Hippology (oral).—The Cavalry horse; draft horses: Nomenclature; conformation; examination for soundness; age of horses; endurance of horses. Bits, biting, and training; saddles; seats; transportation of horses; the horse's foot; stable management; forage.

Field Artillery matériel (oral and practical).—General description and knowledge of the use of Field Artillery matériel and accessories.

FIRST LIEUTENANTS.

To the requirements for second lieutenants, add: The soldier, mounted; the gun squad, mounted; Field Artillery information service.

CAPTAINS.

To the requirements for first lieutenants, add: Artillery in the field.

FOR MAJORS.

The examination will be the same as for battery officers, adding thereto:

Field Service Regulations and military law (oral).—Same as for majors of Infantry. Tables of Organization to include Artillery regiment.

Field Artillery Drill Regulations (oral and practical).—Entire text.

Coast Artillery Corps.

FOR FIRST LIEUTENANTS AND SECOND LIEUTENANTS.

1. *Administration* (oral).—Same as for Infantry.
2. *Drill Regulations* (oral and practical):
   (*a*) Coast Artillery Drill Regulations so far as relates to the formation of the company and marching maneuvers and the drill for one piece, to be selected by the candidate; the current instruction order for the Coast Artillery Corps.
   (*b*) Infantry Drill Regulations, to include the school of the company.
3. *Field Service Regulations, military law, and topography.*—Same as for Infantry.
4. *Explosives* (oral), including primers and fuses.
5. *Electricity* (oral) to include theoretical electricity, basis of electrical measurements, including units; Ohm's law, including its application to shunts; electromagnetism and induced currents; methods of measurement of voltage, current, electrical energy and resist-

ance, of apparatus therefor; primary cells; general principles of storage batteries, generators, and motors.

CAPTAINS.

The subjects for captains are the same as for lieutenants and in addition thereto:

1. *Elementary mechanical and electrical engineering* (oral and practical), to include elementary and applied mechanics; care and operation of steam boilers, steam engines, and internal combustion engines; theory, care, and operation of dynamos, motors, storage batteries, telephones, and searchlights.

2. *Coast Artillery Drill Regulations* (oral and practical).—Fire and mine command.

3. *Ceremonies of Infantry Drill Regulations.*

MAJORS.

For majors, Coast Artillery Corps, the subjects are the same as for captains, and in addition thereto:

1. *Coast Artillery Drill Regulations* (oral and practical).—Entire text.

2. *Infantry Drill Regulations* (oral and practical).—School of the battalion.

3. *Military law and Field Service Regulations.*—Same as for field officers of Infantry.

ENGINEERS.

Candidates for appointment in the Reserve Corps of Engineers will be examined either (*a*) for duty with combatant Engineer troops or other duties in the service of the front, or (*b*) for special service on the lines of communications or other points in rear, including Engineer work in connection with seacoast defenses, as hereinafter indicated. Officers appointed under (*b*) will not ordinarily be assigned to combatant duties but will be subject to such assignment whenever needed.

A. Qualifications for reserve officers, service of the front:

Appendix

1. FOR FIRST AND SECOND LIEUTENANTS.

(*a*) The applicant must be an engineer in the active practice of his profession or some business immediately connected with, or concerned in, engineering matters.

(*b*) He must either hold or have qualified for the grade of junior engineer, civil, electrical, or mechanical or higher grade in the civil service, or he must be a graduate from an approved engineering college, or have been in the active practice of engineering for at least two years.

2. FOR CAPTAINS.

(*a*) The applicant must be an engineer in the active practice of his profession or some business immediately connected with, or concerned in, engineering matters.

(*b*) He must either hold or be eligible for the grade of assistant engineer in the Engineer Department at Large, or a corresponding Engineer grade in the civil service in another department of the Government service, or have held a commission in the Corps of Engineers of the Regular Army, or shall be a professional engineer not less than 28 years of age, who shall have been in the active practice of his profession for at least 8 years and have had responsible charge of work as principal or assistant for at least 2 years. The graduation from a school of engineering of recognized reputation shall be considered as equivalent to two years' active practice.

(*c*) Knowledge of the principles of military organization and operations, as illustrated in Infantry Drill Regulations, Parts I (to include School of the Company) and II, and Field Service Regulations, Part I and Part II (Articles I, II, IV, VI); and of the general principles of field fortifications, as illustrated in the Engineer Field Manual, Chapter V.

3. FOR MAJORS.

(*a*) The applicant must be an engineer in the active practice of his profession or some business immedi-

ately connected with, or concerned in, engineering matters.

(*b*) He must hold the grade of Assistant Engineer in the Engineer Department at Large, or corresponding Engineer grade in the civil service in another department, or have held a commission in the Corps of Engineers of the Regular Army not more than two grades below that for which he desires to be listed, or shall be a professional engineer not less than 35 years of age, and shall have been in the active practice of his profession for 15 years, who shall have had responsible charge of work for at least 5 years, and shall be qualified to design as well as to direct engineering work. Graduation from a school of engineering of recognized reputation shall be considered as equivalent to two years of active practice.

(*c*) In addition to fulfilling the qualifications given in paragraph 3 (*a*) and (*b*), the candidate will be required to pass an examination on the following subjects:

Drill Regulations—Parts I (School of the Company and Battalion only), II, III, Infantry Drill Regulations.

Field Service Regulations, entire text.

Duties of Engineer officers and troops in war, as illustrated in the Engineer Field Manual and Bulletin No. 4, Vol. I, of the office of the Chief of Staff.

Cooperation between the various arms of the service, as illustrated in "Technique of Modern Tactics" (Bond and McDonough) Chapters VIII, IX, XI, and XII.

All examinations will be oral.

B. Qualifications for reserve officers, special services:

Candidates desiring appointment in special services must be qualified for at least one of the duties assigned to the Corps of Engineers by the following extracts from Army Regulations:

"1493. The duties of the Corps of Engineers comprise reconnoitering and surveying for military purposes, including the laying out of camps; selection of

sites and formation of plans and estimates for military defenses; construction and repair of fortifications and their accessories; . . . the installation of electric power plants and electric power cable connected with seacoast batteries; . . . construction and repair of military roads, railroads, and bridges; military demolitions; . . . In time of war within the theater of operations it has charge of the location, design, and construction of wharves, piers, landings, storehouses, hospitals, and other structures of general interest, and of the construction, maintenance, and repair of roads, ferries, bridges, and incidental structures, and of the construction, maintenance, and operation of railroads under military control, including the construction and operation of armored trains."

No oral or professional examinations will be required, but recommendations of boards will be required in lieu of such examinations. Candidates will submit evidence of their actual employment in corresponding or higher positions in civil life and references to persons under whom they have been or are employed. The boards will communicate with such persons and with any others that they deem fit, and upon all the evidence submitted or otherwise obtained will base their recommendations and recommend the appropriate grades for which they deem the successful candidates qualified.

Military experience or training in the Regular Army, Volunteers, or National Guard, or at training camps or educational institutions will be noted and reported by the board and considered in making the recommendations.

Reserve officers from the following civilian occupations will be required for the special services of the Corps of Engineers:

Bridge engineers.
Constructing engineers (earth and concrete).
Constructing engineers (wharves, piers, and buildings).
Electrical engineers (for small plants and power lines).

Highway engineers.
Mining engineers (skilled in tunneling and use of explosives).
Railroad engineers[1] (construction and maintenance).
Railroad operating officials.[1]
Sanitary engineers.
Topographical engineers.

Signal Corps.

FOR CAPTAINS AND LIEUTENANTS.

Administration (oral).—Army Regulations: Same as for company officers of Infantry. Also regulations pertaining specially to the Signal Corps. Laws relating to Signal Corps.

Signaling (oral and practical). — Theoretical and practical knowledge of modern methods of visual signaling, including ability to transmit and receive messages by flag, lantern, and heliograph.

Telegraph and telephony (oral and practical). — Theoretical and applied knowledge of electricity and telephony, covering (*a*) installation and repair of telephones, testing for faults, etc.; (*b*) construction, maintenance, and operation of permanent telegraph and telephone lines; (*c*) installation, maintenance, and operation of field lines; (*d*) skill in transmission and receipt of messages on telegraph lines; (*e*) dynamos, motors, and batteries (oral and practical); (*f*) radiotelegraphy.

Military law (oral).—Manual of Courts-Martial (official). Instructions for the government of armies of the United States in the field (General Orders, Nos. 4 and 52, of 1902, A. G. O., and Circular No. 65, W. D., 1907, Rules of Land Warfare).

Topography (practical). — Map reading and field sketching.

[1] Note.—Railway officials desiring to serve in connection with the transportation of troops and supplies on commercial lines in the zone of the interior, i. e., outside of the theater of operations, see Quartermaster Corps.

FOR MAJORS.

The examination will be the same as the foregoing, adding thereto scheme as to material, cost, time, etc., and method of constructing a permanent telegraph line in such portion of the United States as may be designated; scheme for assembling, organizing, and transporting a mobile telegraph train for building light, semipermanent lines for telegraph or telephone communication under conditions to be designated by the examining board.

Engines, boilers, internal-combustion engines, automobile traction.

NOTE.—Applicants for commissions in the aviation section of the Signal Corps will not be examined mentally. The examining board will carefully consider the documentary evidence submitted by the applicant. It may seek additional information by practical tests, personal questions, or by procuring additional documentary or oral evidence.

Military experience or training in the Regular Army, Volunteers, or National Guard, or at training camps or educational institutions will be given due consideration and noted and reported in the proceedings.

Based upon careful consideration of all the evidence in the case, the board will make its recommendations, which will include the appropriate grades, if it considers the applicant qualified for a commission.

For the special services of the aviation section reserve officers procured from civilians engaged in the following occupations will be needed:

Aviators.
Aeroplane designers.
Motor designers.
Experts in aero photography and radio communication.
Aeronautical engineers.
Balloonists.

Adjutant General's Department.

FOR ALL OFFICERS.

1. *Administration* (oral).—Army Regulations, in the discretion of the board, special importance being attached to the portions relating to the usual duties of the officers of the Adjutant General's Department, including the subjects of "Military correspondence," "Orders," "Muster rolls," "Returns of troops," and "Records."

2. *Military law* (oral).—Manual of Courts-Martial (official).

3. *Field Service Regulations* (oral).—Entire text.

Inspector General's Department.

FOR ALL OFFICERS.

1. *Administration* (oral).—Army Regulations, in the discretion of the board, special attention being devoted to the articles "Inspector General's Department," "Money accountability," and "Public property."

2. *Drill Regulations of the three arms* (oral).—Same as for company, troop, battery, and field officers.

3. *Field Service Regulations* (oral).—Entire text.

4. *Military law* (oral).—Manual of Courts-Martial (official). Instructions for the government of armies of the United States in the field (Rules of Land Warfare, General Orders, Nos. 4 and 52, of 1902, A. G. O., and Circular No. 65, W. D., 1907).

5. *Tables of Organization.*—Complete.

6. *Equipment manuals.*—All branches.

7. *Rules of evidence.*—To the extent that they are set forth in textbooks on military law.

8. At least one year's active service as an officer with some branch of the line of the Army, the Volunteers, or the National Guard in the service of the United States.

Appendix

Quartermaster Corps.

I. FOR MAJORS AND CAPTAINS WHOSE ADMINISTRATIVE DUTIES REQUIRE KNOWLEDGE OF THE FOLLOWING:

Administration (oral and practical).—Army Regulations, 1913; Article XLIX—Advertising and printing; Article L—Purchase of supplies and engagement of service; Article LI—Bonds of disbursing officers, bidders, and contractors; Article LII—Money accountability; Article LIII—Public property accountability and responsibility; Article LIV—Lands, buildings, and improvements; Article LV—Surveys on property; Article LVI—Civilian employees, general provisions; Article LXXIII—Quartermaster Corps.

Applicants for the Quartermaster section will be examined either for duties that require—

1. Knowledge of administrative and clerical details.
2. Special services of a business or professional nature requiring no special military knowledge.

The first class will receive a mental examination to test their fitness for the peculiar services required. The second class will not be subject to mental examination.

General duties.—United States Army Transport Regulations, 1908, and circulars of the Quartermaster General's Office relating to supplies, payment, and services. Subsistence and pay manuals.

Blanks should be furnished and the applicant required to exemplify their use in the preparation of contracts, bonds, returns, accounts current, etc.

Military law (oral).—Manual of Courts-Martial (official). The law of war. Civil functions and relations of the military. Instructions for the government of armies of the United States in the field (Rules of Land Warfare, General Orders, Nos. 4 and 52, of 1902, A. G. O., and Circular No. 65, W. D., 1907).

Hippology (oral).—The Cavalry horse; draft horses and mules; inspection and purchase; care of; feeding; watering. Stables: Construction; lighting; ventilation.

Forage: Kinds and relative value; inspection of; causes of deterioration; proper care of.

Transportation (oral).—By land (rail, wagon, and pack) and water. Care of animals on cars and transports. Construction and repairs of roads, railroads, bridges, etc.

11. FOR MAJORS, CAPTAINS, AND THOSE WHOSE DUTIES ARE NOT ADMINISTRATIVE

[No mental examination required.]

Knowledge of and experience in one of the trades or lines of business listed below are required:

Railroad—
- (*a*) Traffic manager, commercial.
- (*b*) Accounting department, railroad.
- (*c*) Operating department, railroad.
- (*d*) Mechanical department, railroad.
- (*e*) Other capacity, not named above, railroad.

Navigation companies and merchant vessels—
- (*a*) As manager.
- (*b*) As port captain.
- (*c*) As superintending engineer.
- (*d*) As chief steward.
- (*e*) As marine superintendent.
- (*f*) As inspector of construction and repairs.
- (*g*) As estimator on marine repairs.
- (*h*) As superintendent of docks, warehouses, etc.

Auto truck transfer companies.

Auto truck freight companies.

Warehouse and terminal companies.

Animal industry—
- (*a*) Purchasing horses and mules.
- (*b*) Shipping horses and mules.
- (*c*) Breeding and raising horses and mules.

Wholesale feed and grain business.

Wagon, Machine, or other factories.

Harness factory.

Auto truck repair shops or factories.

Automobile repair shops or factories.
Ship construction or repair firms.
Wholesale grocery business.
Wholesale clothing business.
Wholesale shoe business.
Clothing manufactory.
Shoe manufactory.
Hat manufactory.
Auto truck manufactory.
Packing houses or factories.
Shop management and its nature.
Official of large restaurant or hotel company.
President, secretary, or manager of any large business, whatever its nature.
Official of any department of a large business.
Building company.
Construction company.
Civil engineering.
Mechanical engineering.
Sanitary engineering.
Electrical engineering.
Structural engineering.
Banks or banking firms or corporations.
Financial or cashier departments of railroads or other transportation companies, corporations, or other large business concerns.

Any other industries or business not mentioned above that may make the applicant a desirable officer of the Quartermaster Corps in time of war.

An examining board will carefully consider the documentary evidence furnished the board by the applicant. It may gain additional information by personal questions as to his business experience and other pertinent matters. The board may also call for additional documentary or oral evidence bearing on the suitability of the applicant for a commission in the Quartermaster Section of the Officers' Reserve Corps.

NOTE.—Railway officials and engineers desiring to serve in connection with the construction, maintenance,

and operation of railways in the theater of operations, i. e., under military control, see Engineers.

ORDNANCE DEPARTMENT.

The examination for the Ordnance Department will consist of two parts, the first part being designed for applicants desiring service in the field and the second part for applicants desiring technical duty. It is optional with the applicant to take either part, or both.

First Part.

FOR CAPTAINS AND FIRST LIEUTENANTS.

Administration (oral).—Army Regulations and important general orders, in the discretion of the board, special attention being devoted to Articles 1-5, 9-13, and 29-32, all inclusive, and Articles 39, 40, 50-56, 60, 61, 76 A. R., 1913; also, Ordnance Regulations, 1907, and Ordnance Property Regulations, 1909.

Small Arms Firing Regulations (oral).—Same as for company officers of Infantry.

Duties of ordnance officers (oral).—(*a*) General War Plans of the Ordnance Department, G. O. 3, Office of the Chief of Ordnance, August, 25, 1913; duties of chief ordnance officers and commanding officers of ordnance depots in the field, General Orders, Nos. 2, 3, 4, 5, 6, and 11, Office of the Chief of Ordnance, 1912; practical duties of ordnance officers in the field, including minor repairs of arms and equipment. (*b*) Practical knowledge of the arms, ammunition, and equipments of Infantry, Cavalry, and Field Artillery.

FOR MAJORS.

The examination will be the same as the foregoing, but the board will, in addition, inquire into the business capacity of the applicant and his experience in handling affairs and men. The examination under "Administration" and "Duties of ordnance officers" will also be more extended than for the grades of captain and first

lieutenant, by reason of the greater responsibility pertaining to the duties of officers of field rank.

Second Part.

FOR CAPTAINS AND FIRST LIEUTENANTS.

Administration (oral).—Army Regulations, 1913, and important general orders in the discretion of the board, special attention being devoted to Articles 1-5, 9-13, 29-32, all inclusive, and Articles 39, 40, 50-56, 60, 61, 76; also, Ordnance Regulations, 1907.

Military law (oral).—Same as for company officers of Infantry.

Duties of ordnance officers (oral).—(*a*) Knowledge of boilers, engines, tools, including practical handling of tools.

(*b*) Practical electricity and electrical machines.

(*c*) Experience in the manufacture of articles composed of steel, of wood, of leather.

FOR MAJORS.

The examination will be the same as the foregoing, but the board will, in addition, inquire into the business capacity of the applicant, his experience with mechanics and machinists, and his ability in the management of manufacturing establishments.

MEDICAL DEPARTMENT.

(Examinations will be conducted under special instructions from the Surgeon General.)

Medical section.

FOR CAPTAINS AND FIRST LIEUTENANTS.

1. *Administration.*—Army Regulations so far as they relate to the Medical Department or to the medical officer as an officer of the Army.

Manual for the Medical Department.

(Blanks should be furnished and the applicants required to exemplify their use in the preparation of reports and returns.)

2. *Drill regulations and service manual for sanitary troops.*

3. *Technical professional subjects* as prescribed by the Surgeon General.

4. *Military law.*—Manual for Courts-Martial (official); Rules of Land Warfare.

FOR MAJORS.

1. *Administration.*—Army Regulations so far as they relate to the Medical Department or to the medical officer as an officer of the Army.

Field Service Regulations in so far as they relate to the Medical Department.

Manual for the Medical Department.

(Blanks should be furnished and the applicants required to exemplify their use in the preparation of reports and returns.)

2. *Technical professional subjects* as prescribed by the Surgeon General.

3. *Military law.*—Manual for Courts-Martial (official); Rules of Land Warfare.

Dental section.

ALL GRADES.

1. *Administration.*—Army Regulations so far as they relate to the dentist as an officer of the Army.

Manual for the Medical Department so far as it relates to the dentist as an officer of the Army.

(Blanks should be furnished and the applicants required to exemplify their use in the preparation of reports and returns.)

2. *Technical professional subjects* as prescribed by the Surgeon General.

3. *Military law.*—Manual for Courts-Martial (official.)

Appendix

Veterinary section.

ALL GRADES.

1. *Administration.*—Army Regulations so far as they relate to veterinary service and to the veterinarian as an officer of the Army.

Manual for the Medical Department so far as it relates to the duties of the Veterinary Corps.

(Blanks should be furnished and the applicants required to exemplify their use in the preparation of reports and returns.)

2. *Technical professional subjects* as prescribed by the Surgeon General.

3. *Military law.*—Manual for Courts-Martial (official).

JUDGE ADVOCATE GENERAL'S DEPARTMENT.

The applicant shall produce a diploma from a regularly established law school of good reputation, and shall submit evidence that he has been a practicing attorney in good standing for a period of at least two years.

FOR ALL OFFICERS.

Administration (oral).—Army Regulations: In the discretion of the board, special importance being attached to Article XLIV (The Organized Militia), (Employment of troops in the enforcement of the laws); Articles XLVII and LXVIII (Judge Advocate General's Department); Article LXIX (Arrest and confinement); Article LXX (Courts-martial); LXXI (Civilian witnesses); Article LXXII (Employment of civil counsel—Habeas corpus). The Articles of War.

Military law (oral).—Manual of Courts-Martial (official).

International law and the law of war (oral)—

1. States and their essential attributes.
2. Perfect and imperfect rights.
3. National character.
4. The conflict of international rights.

5. War.
6. Neutrality; the rights and duties of neutrals.
7. Law of military occupation.
8. Rules of Land Warfare and Bulletin 6, W. D., 1913.
9. The Geneva Convention, 1906 (Circular, No. 65, W. D., 1907).
10. The Hague Conference (General Orders, Nos. 4 and 52, A. G. O., 1902).
11. Military Government and Martial Law (Birkhimer).

Revised Statutes and acts of Congress relating to the organization, etc., of the Military Establishment of the United States (oral).—In the discretion of the board, the scope of the examination to be sufficient to test the applicant's knowledge of the fundamental principles and more important details of the laws relating to the Army of the United States and the Militia.

[2430673—A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

H. L. SCOTT.
Major General, Chief of Staff.

OFFICIAL:

H. P. MCCAIN.
The Adjutant General.

LETTER OF APPLICATION FOR EXAMINATION FOR COMMISSION IN OFFICERS' RESERVE CORPS.

(Under section 37, act of June 3, 1916.)

———— ————, 19—.

The ———— ————,
———— ————,

SIR: I have the honor to apply for examination for a commission as [1]———— of [2]————, [3]————, in the

[1] Insert grade.
[2] Insert branch of service, staff corps, or department, as Cavalry, Field Artillery, Coast Artillery, Infantry, Quartermaster Corps, etc.
[3] Name staff position, and in this case rule out ([1]) and ([2]).

Officers' Reserve Corps, organized under the authority of Congress.

I have served ——— years in [4]———.

I have pursued a regular course of instruction for ——— years in [5]———.

I graduated in the year ——— from [6]———, after having creditably pursued the course of military instruction therein provided.

I was born ———, 1——, and am [7]——— a citizen of the United States. My business is ———. My experience is ———. I inclose letters of recommendation and addresses of citizens who know me, as follows: ——— ———.

Respectfully, ——— ———,
——— ———.

The correctness of the statements above made was sworn to and subscribed before me, ———, 19—.
[8]——— ———,
———.

[4] Insert service in Regular Army of the United States, or volunteer forces of the United States, or Organized Militia of any State, Territory, or District of Columbia; also state in what capacity.

[5] Insert name and location of the school or college.

[6] Insert the name and location of the educational institution to which an officer of the Army or Navy has been detailed as superintendent or professor pursuant to law.

[7] Insert "not" if in accordance with fact.

[8] Oath to be taken before, and signature to be made by, officer authorized by law to administer oaths.

NOTE.—The foregoing is the form to be followed in applying for examination, and is to be addressed to the adjutant of the department in which the applicant lives. The Adjutant General of the Army or the head of the staff corps, or department concerned.

Appendix III

MILITARY LAW AND EFFICIENT CITIZEN ARMY OF THE SWISS.

A COMPARISON OF CERTAIN EXTRACTS FROM THE CONSTITUTIONS OF THE UNITED STATES AND THE SWISS CONFEDERATION, SHOWING SIMILAR MILITARY POWERS.

EXTRACTS FROM CONSTITUTION OF THE UNITED STATES, 1787	EXTRACTS FROM CONSTITUTION OF SWITZERLAND, 1874
	["Modern Constitutions," by W. F. Dodd, p. 257.]
Congress shall have power: To raise and support armies; To make rules for the government and regulation of the land and naval forces. (Sec. 8 of Art. 1.)	The Confederation exercises control over the Army and the material of war provided by law. (Art. 19, sec. b.)
The President shall be Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States when called into the actual service of the United States. (Sec. 2 of Art. II.)	It (the Federal Council) shall have charge of the military establishment of the Confederation and of all other branches of administration committed to the Confederation. (Art. 102, par. 12.)
A well-regulated Militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed. (Art. II, amendments.)	The Confederation shall have no right to maintain a standing army. (Art. 13.)
	The Cantons shall have authority over the military forces of their territory, so far as this right is not limited by the Federal Constitution or laws. (Art. 19, sec. b.)

Appendix

EXTRACTS FROM CONSTITUTION OF THE UNITED STATES, 1787 —continued

Congress shall have power:
To provide for organizing, arming, and disciplining the Militia and for governing such part of them as may be employed in the service of the United States, *reserving to the States, respectively, the appointment of the officers and the authority of training the Militia according to the discipline prescribed by Congress.* (Sec. 8, Art. I.)

Congress shall have power:
To make all laws necessary and proper for carrying into execution the foregoing powers. (Sec. 8 of Art. I.)

Congress shall have power:
To provide for calling forth the Militia to execute the laws of the Union, suppress insurrections, and repel invasions. (Sec. 8 of Art. I.)

No State shall, without the consent of Congress, * * * keep troops * * * in time of peace. (Sec. 10, Art. I.)

EXTRACTS FROM CONSTITUTION OF SWITZERLAND, 1874 —continued

Military instruction of every kind shall be under the control of the Confederation. The same applies to the equipment of troops. (Art. 20.)

So far as military reasons do not prevent, corps of troops shall be formed from soldiers of the same Canton. *The composition of these bodies of troops, the maintenance of their effective strength, the appointment and promotion of their officers shall belong to the Cantons, subject to general regulations which shall be issued to them by the Confederation.* (Art. 21.)

In case of danger the Confederation shall also have the exclusive and direct control of men not included in the Federal Army, and of all other military resources of the Cantons. (Art. 19, sec. b.)

No Canton or half Canton shall, without the permission of the Federal Government, have a standing force of more than three hundred men; the armed police are not included in this number. (Art. 13.)

MILITARY LAW OF THE SWISS CONFEDERATION.

[Reprinted from the Loi Federale of Apr. 7, 1907. Translated by Second Lieutenant Alexander P. Cronkhite, Corps of Engineers, November, 1915.]

In virtue of the constitution of May 29, 1874, and in accordance with the message of the Federal Council of March 10, 1906, the Federal Assembly of the Swiss Confederation decrees the following:

Part 1.

MILITARY OBLIGATIONS.

1. Extent of Obligations.

1. All Swiss must perform military service. The obligations comprise:

(*a*) Personal service of a military nature.

(*b*) The payment of a tax of exemption . . . a military impost.

2. The citizen is liable for service from the beginning of the year in which he reaches the age of 20 until the end of the year in which he is 48. Young men peculiarly fit for service may be authorized to enter the Army before reaching the legal age, and if accepted they satisfy all the obligations of their classes in years.

Officers and individuals on recruiting service are excepted from the operation of the general law.

3. Any person who does not perform personal military service must pay the military tax until the end of the year in which he reaches the age of 40.

The military tax is determined by a special law.

2. Recruiting.

4. The Confederation, with the aid of the Cantons, recruits the men who have presented themselves for military service. The Federal Council organizes com-

missions for this recruiting and governs their procedure. Men are recruited in their nineteenth year.

5. When recruited men are placed in one of the three following classes:

(*a*) Men fit for service in the line.

(*b*) Men fit only for the complementary services.

(*c*) Men unfit for duty.

The decision as to fitness for service may be deferred for not more than four years. The assignment to a branch of the service takes place at the same time as the recruitment.

6. Men present themselves at the recruiting stations in their place of domicile or origin. For the obligation of so presenting themselves and during the whole recruitment period they are subject to military jurisdiction and to military penal laws.

7. Each man receives a service notebook as testimonial, which shall contain all information relative to his military obligations, as well as information regarding their state of completion. This military notebook may not be used as a civil reference.

3. Obligations of the Service.

8. Men fit for duty are obliged to give personal service, comprising:

(*a*) Instruction service.

(*b*) Active service . . . either in defense of the nation, against foreign aggression, or in maintaining tranquillity and order within.

9. Personal service includes, besides the roster prescriptions, maintenance and inspection of uniforms, personal armament and equipment, obligatory firing drill, and, in general, conformation to the military obligations of the service.

10. Every person of the soldiery may be required to accept a commission, to perform the duties demanded thereby, and to take charge of a command. Whoever receives a commission must fulfill the obligations thereof.

11. Soldiers receive from the state pay, subsistence, and mileage for changes of station. The state also provides for their lodging. The pay is fixed by a Federal law. Arrangements for lodging, subsistence, and mileage are determined by the Federal Assembly.

12. Members of the Assembly are exempt from service of instruction during the sessions thereof.

13. The following, during the period of their employment or functions, are exempt from service of instruction:

(1) Members of the Federal Council and the Chancellor of the Confederation.

(2) Ecclesiastics not incorporated as chaplains.

(3) Directing physicians, permanent administrators, and nurses in the public hospitals.

(4) Directors and guardians of penitentiaries and corrective prisons; agents of the organized police forces. (These last are subject to the restriction of art. 62.)

(5) The personnel of the frontier guards. In case of mobilization for war, the Federal Council may dispose of this personnel according to the needs for defense.

(6) The indispensable officials and employees for transportation, the general welfare, and the administration of military affairs in time of war. An ordonnance of the Federal Council indicates the plans for the transportation service, and the personnel necessary for them in time of war.

14. The personnel of the police forces and of the frontier guards, as well as the officials mentioned in article 13 (6), are not exempt from service until after having been through a school for recruits.

15. The Confederation reimburses the Cantons three-fourths the expenses arising from the loss of the services of public instructors called out as officers, or non-commissioned officers in the course of instruction. The courses of common instruction are excepted.

16. Any soldier who, by his private life, renders himself unfit for his commission or for the service

shall be brought before a military tribunal, which shall pronounce decision as to whether or not he shall remain in the service.

17. Any soldier condemned for a serious offense shall not be allowed to perform personal service. His exclusion is pronounced by the military department.

18. Officers under tutelage, in bankruptcy, or against whom there exists a judgment for the default of property are excluded from personal service. In case the cause for exclusion disappears the authority which has made the nomination decides upon the question of reinstatement. Officers under tutelage, in bankruptcy, or against whom there exists a judgment for the default of property are excluded from personal service only so long as the motive for the exclusion exists.

19. Incapable officers and noncommissioned officers are relieved from their commands by the authority which commissioned them and are subjected to the military impost. This authority must give sanction to any proposition of withdrawal from command formulated by the commander of the division or army corps and ratified by the Swiss military department.

The commission for national defense proposes the withdrawal from command of the superior officers.

4. Complementary Services.

20. Men recognized as fit for complementary service are incorporated into it at the time of enlistment.

The complementary services are intended primarily to complete, according to the exigencies of the army and in actual service, the work of pioneer troops, sanitary troops, administration of the subsistence department, and matters of transportation.

Men incorporated in the complementary branches do not perform service of instruction, but pay the military impost during the years they are not actually serving.

The Federal Council fixes the regulations concerning the complementary branches.

5. Special Pay and Allowances.

21. The Confederation protects its soldiers against the financial consequences of sickness and accidents. The application of this principle is determined by law.

22. Families who become destitute in consequence of being dependent upon some one called into service receive aid from the Government proportional to their needs. This aid may not be assimilated with public charities.

23. This aid is administered by those persons of the community where the destitute persons dwell having that right. If the persons dwell abroad, then the aid is administered by their native commune. The communal government fixes the nature of the aid required, decides as to its importance, and also takes all measures which the circumstances warrant. The commune reports on its action to the cantonal authority, and the latter reports to the Swiss military department.

24. The expenses of the communes are defrayed three-fourths by the Confederation and one-fourth by the Canton in which the commune is situated.

25. In case of disputes, the decisions of the Federal Council are final upon all measures taken by the communes.

26. No reimbursement for these aids may be claimed.

27. When a civilian is killed or hurt during a military exercise, the Confederation is responsible, unless it can be shown that the accident was due to an act of God, or that it was due to carelessness on the part of the individual. If the accident be followed by death, the Confederation is responsible toward those who were dependent upon the victim.

28. Similarly, the Confederation is responsible for all damage to property caused by maneuvering, etc. The Federal Assembly determines the procedure in such cases.

29. The Confederation may have recourse against persons responsible for accidents that have resulted in death, injury, or damage to property.

6. Aid to be Furnished by the Communes and Inhabitants of the Confederation.

30. The communes and inhabitants are required to—

(1) Furnish lodging and food to troops and horses; also parking grounds for vehicles.

(2) To effect the military transportation required.

They receive a proper indemnity from the Confederation.

31. The communes furnish gratuitously—

(1) Grounds for recruiting stations, sanitary examinations, and inspection of personal arms and equipments.

(2) Locations for headquarters, guards and guardhouses, and hospitals.

(3) Places for the concentration and mobilization of troops.

(4) Locations for target ranges. (Art. 124.)

32. For the creation of target ranges and drill grounds, the Federal Council may authorize the communes to apply the Federal law dealing with appropriation for the public welfare.

33. Proprietors may not oppose the use of their land for military drill. The Confederation is responsible for damages thereto. The Federal Assembly determines the procedure.

34. Every 10 years, or whenever it shall be necessary, there shall be taken, by commune and by Canton, a census of all horses and mules fit for various military purposes. The owners must bring the animals to the place where the census is to be taken, gratuitously, and will be held responsible for all expenses incurred through their negligence or failure to so bring them. Each commune shall have control of the horses, mules, and vehicles of its territory.

Part 2.

ORGANIZATION OF THE ARMY.

1. Classes of the Army.

35. The army comprises the Elite, the Landwehr, and the Landsturm.

The Elite is composed of those soldiers that have not completed their thirty-second year; the Landwehr is composed of those of ages of 33 to 40, inclusive; the Landsturm is composed of those of the ages of 41 to 48 years, inclusive.

There are also incorporated in the Landsturm all soldiers who have become unfit for service in the Elite or Landwehr, yet who may still serve in the Landsturm, as well as volunteers having the necessary knowledge of firing and possessing the requisite physical fitness.

In the cavalry, the duration of the service of non-commissioned officers and soldiers in the Elite is 10 years.

36. Captains serve in the Elite until the end of their thirty-eighth year; the Landwehr until the end of their forty-fourth year. In the Landsturm all officers serve until the end of their fifty-second year.

With their consent, officers may be retained in the service beyond these limits.

Officers of the age to serve in the Elite may be incorporated in the Landwehr or in the Landsturm, and officers of age to serve in the Landwehr may be incorporated in the Landsturm.

37. The passage from one class to the other takes place the 31st of December. The Federal Council may postpone this date if war is impending.

In case of war the Landwehr may be called to fill up vacancies in the Elite and the Landsturm may be called to fill up vacancies in the Elite and the Landwehr.

2. The Parts of the Army.

38. The army comprises:

1. The officers.

2. The general staff.

3. The branches, to wit:

(*a*) The infantry (fusileers, carbineers, cyclists, the machine-gun personnel).

(*b*) The cavalry (dragoons, light artillery, the mounted machine-gun personnel).

(*c*) The artillery (field artillery, mountain artillery, foot artillery, ammunition trains).

(*d*) The engineers (engineer officers, sappers, pontoon troops, pioneer troops, railroad troops).

(*e*) Fortress troops (fortress artillery and machine-gun personnel, fortress pioneers and sappers).

(*f*) Sanitary troops (physicians, pharmacists, and the sanitary personnel).

(*g*) Veterinary troops (veterinarians, farriers).

(*h*) Troops of the commissary and subsistence departments.

(*i*) Transportation and supply troops (personnel of the field and combat trains; teamsters).

4. The auxiliary branches, to wit:

Military law officers, chaplains, personnel of the field post and telegraph service, personnel of the general transportation service (railroad personnel excepted), territorial personnel, secretaries, and orderlies at headquarters; personnel of the automobile troops and the military police.

5. The complementary branches . . . see article 20.

The Federal Assembly may modify or alter this enumeration.

39. The army is subdivided into:

(1) Basic units, as the company, the squadron, the mountain battery, the ambulance company, field hospitals, and detachments of railroad troops.

(2) Tactical units, as the battalion, *groupes* of artillery (an artillery *groupe* is composed of two, three,

or four batteries), the regiment, the lazaret (hospital), subsistence detachments, mobile trains, and the depot trains.

(3) Administrative units, as the division, the army corps, and the garrisons of fortified places.

3. Staffs and the General Staff.

40. The staff of the army is attached to the person of the commander in chief. A prescription of the Federal Council determines its organization.

In time of peace the General Staff acts as the staff of the army.

41. A staff is attached to the commanders of the administrative units and to the commanders of the tactical units.

The assignment of officers and secretaries to the staffs is made by the Swiss military department, on recommendation of the commanders involved, but the assignments to the staffs of fusileer battalions are excepted.

According to law, officers called upon to serve as adjutant are reincorporated into their organizations after the lapse of four years.

42. The General Staff is composed of officers of the General Staff Corps and railroad officers.

The chief of the General Staff Corps is the head of the General Staff.

43. In order to be admitted to the general staff it is necessary that the officer proposed be a captain or a first lieutenant holding a certificate of eligibility for the grade of captain, and to have passed successfully the course at the Staff School I.

Captains who have successfully passed the course at the Central Staff School II, and who are eligible for service in the General Staff are exempted from having to take the first part of the course of the Staff School I.

44. According to law, after the first period of four years officers are reincorporated in their old organizations. An opportunity should be furnished them to

exercise command of an organization during each of their grades.

Railroad officers are chosen from among the steamboat and railroad officials of the country.

4. Subdivisions of the Army.

45. The following tactical units shall be formed:

Infantry: The battalion, of 3 to 6 companies; the regiment, of 2 to 4 battalions; the brigade, of 2 to 3 regiments.

Cavalry: The regiment, of 2 to 3 squadrons of dragoons; the brigade, of 2 to 3 regiments and a company of mounted machine-gun troops.

Artillery: The *groupe*, of 2 to 4 batteries of field artillery, mountain, or foot artillery; the regiment, of 2 to 3 *groupes*. The mobile park, of 4 to 6 companies, with necessary supplies and transportation; the depot park, of 2 to 3 "park" companies. (The term "park" issued in a broad sense to include trains of ammunition, guns, etc., accompanying an army in the field.)

Engineers: The battalion, of 2 to 4 companies, and the necessary transportation.

Fortress troops: The fortress artillery "*groupe*," of 2 to 6 companies of fortress troops.

Sanitary troops: The "lazaret," of 3 to 6 field hospitals, with the necessary transportation.

Subsistence troops: The subsistence detachment, of several companies of subsistence troops, with the necessary transportation.

46. The division is formed of tactical units, and basic units of the various arms. The army corps is formed of several divisions, with the ultimate addition of other tactical and basic units.

47. The commander of a fortified place has supreme direction of the defense of the place, and commands the garrison. In time of war he has power to make use of all war *material* in the place.

The garrison of the place comprises: The staff of the commander, with the chiefs of artillery and of

engineers, the commanders of the various sectors of the defenses and of the forts, the fortress troops, and all other troops assigned permanently to the defenses of the place.

To guard against surprise, local guards may be formed in conjunction with the soldiery stationed in the vicinity.

48. In the organization, instruction, and equipment of the basic and tactical units recruited in mountainous regions the necessities of mountain warfare must be taken into consideration.

49. Officers, noncommissioned officers, and soldiers of other units or of the auxiliary branches may be attached to staffs or to other units to whom they may be necessary. These are retained in their original arm or branch, but march with the unit or staff to which they have been attached. They assist, according to the demands of the service, the commander of the staff or of the unit to which attached.

50. The service of subsistence and of accountability are administered by quartermasters in the tactical units; by officers of the commissary in administrative units.

Quartermasters are detailed from troop officers, but are retained in their own arm.

51. Officers unassigned are at the orders of the Federal Council.

52. The Federal Assembly determines:

(1) The number and composition of the basic units of the various arms, as well as the composition of the equipment of the organizations.

(2) The number and composition of the tactical and administrative units, as well as the composition of their staffs and the composition of the equipment of the organizations.

(3) The number of battalions and companies of infantry and squadrons of cavalry to be furnished by each Canton.

53. Upon these orders as basis the Federal Council directs the order of battle of the army.

5. Auxiliary Branches.

54. Military law is administered by division tribunals, supplementary tribunals, the military tribunal of appeals, and the supreme military tribunal. The auditor in chief (judge advocate) has direction of the administration of military justice.

Military law officers must possess a knowledge of law and must have served with troops.

Military penal law is fixed by a special Federal law.

55. Chaplains are attached to the various tactical units, according to the faith predominating in the organization. They have the rank of captain.

56. The field postal service is charged with service to the troops as soon as they are on important duty.

The field telegraph service provides for telegraphic communication in the army.

The employees of the field telegraph and postal service have rank of officers or noncommissioned officers during their service therein.

57. The railroad and transportation departments establish communication between the army and the bases. They attend to the supplying and transportation of men and material left behind by the army, and also protect the lines of communication.

58. The territorial department has charge of the military interests in the interior of the country, in so much as the army itself has not assumed charge thereof. They prepare the supplies and receive the men and material abandoned.

They may also be charged with the local defenses outside the zone of operations.

59. The staff secretaries perform the office work of the staffs. They have the rank of regimental adjutant or lieutenant.

60. Orderlies are assigned to staffs and to units, for the care of horses and to care for the arms and personal equipment of the officers (mounted). Field and

mountain artillery officers are not included in this privilege.

Officers' orderlies are drilled with the train troops. They perform their duties on the staffs, or in the units to which assigned.

The Federal Council determines other duties of orderlies.

61. Soldiers or volunteers are assigned to the automobile service, or other similar departments of transportation. While serving therein they are relieved from operation of the conscription law.

62. The Federal Assembly organizes a military police force, composed of agents of the civil force, and charged with the duties of police in the neighborhood of the troops.

6. Officers and Noncommissioned Officers.

63. The grades are as follows:

(*a*) Enlisted men.

(*b*) Noncommissioned officers . . . corporal, sergeant, quartermaster sergeant, sergeant major, adjutant-sous-officer (the highest ranking noncommissioned officer).

(*c*) Subalterns . . . lieutenants, and first lieutenants.

(*d*) Captains.

(*e*) Higher officers: Major, lieutenant colonel, colonel of division, colonel of corps, general.

The incumbent of a grade keeps his title, whether or not he exercises the corresponding command.

64. In questions of equal rank, length of service determines the relative rank. If length of service is the same, then the relative rank is determined by age.

A commander temporarily absent is replaced by his immediate subordinate, except when another is specially designated. Such choice should fall upon that subordinate who has had opportunity to exercise command over the unit already, or has had instruction therein.

65. Officers and noncommissioned officers must be

maintained at full strength. Depot troops must also be provided with sufficient officers.

66. Any nomination and promotion is subordinate to the possession of a certificate of capacity, given in conformation with prescriptions on the subject.

The Federal Council has the right to invalidate promotions and nominations which are contrary to the present laws and ordinances on the subject of promotion.

67. Certificates of capacity as commissioned or noncommissioned officers are given by commandants of schools or organizations as soon as candidates have successfully undergone the instruction prescribed therefor.

68. The nomination of commissioned officers and the nomination and promotion of noncommissioned officers shall be performed by the chief of staff or the commanders of the units involved. They are made in accordance with the needs of the service and the length of service of the individual.

69. Certificates of capacity for the nomination to the rank of lieutenant and promotion to the rank of first lieutenant and captain are given by the head of the branch concerned as soon as they have successfully terminated their courses of instruction (school or with troops). The certificates are submitted to the division, corps, or garrison commanders for their approbation, as the case may be.

70. The commission of national defense gives the certificates of capacity for the nomination and promotion of the higher officers.

It formulates the propositions for the promotion and incorporation of the higher officers at the nomination by the Federal Council.

71. Promotions to the grade of first lieutenant are made according to the needs of the service and the length of service of the individuals. Above this grade the promotions are made according to the needs of the service and the aptitude of the individuals.

72. An ordinance of the Federal Council determines

other qualifications for obtaining a commission, in conformation with the present laws.

7. Service Horses.

73. The Confederation aids mounted officers in procuring, training, and maintaining saddle horses.

74. Lieutenant colonels and officers of a higher grade exercising command in the Elite receive an annual allowance for saddle horses in their possession. The same rule applies to officers of the General Staff incorporated into the staff of the army, or the staffs of the Elite.

During actual service a daily allowance, dependent upon their location, is also paid these officers for other horses they have the right to possess. This applies to all mounted officers.

Horses for whom is due an annual allowance or a daily allowance, dependent on location, are examined from time to time, and their value is cut down at these times or at the end of their services.

The Federal Council determines regulations having to do with the various allowances, and with the service horses in general, and it appoints instructors for horsemanship.

75. Officers, noncommissioned officers, and soldiers of cavalry are required to possess a saddle horse fit for duty. Upon demand, the Confederation, in accordance with conditions prescribed for cavalry soldiers, assigns mounts for cavalry in the Elite.

76. Cavalry troop horses are bought by the Confederation or furnished by the individual. They are trained in the remount schools, examined and turned over to the troopers.

77. When a horse is given over to the Government the man gives the Government half the estimated value of the horse (or, in case he has furnished the horse himself, receives half that price). The half paid by the individual (or, in the second case, retained by the individual) is returned to him in annual installments of one-tenth part each.

78. The mount remains in the hands of the individual as long as he continues to serve in the Elite. Outside the service the individual is required to feed and pay for the maintenance of his horse. He may use him for any purposes which do not compromise his military serviceability. The horse must be present every time the man is called to the colors.

79. The individual is responsible for the loss of his horse and for any harm to it due to carelessness on his part. If he cares for the horse badly, or if his situation is such as to preclude his caring for it at all, he restores it to the Government. He himself is transferred to another arm, or is freed from obligatory service.

80. Cavalry horses are the property of the Confederation and may not be sold by the individual. They may be neither seized nor hidden.

The man who has completed 10 years of service with his horse, becomes the owner of it.

81. The lodging, maintenance, and feeding; and the employment of cavalry horses outside the service are controlled by army officers.

82. The Confederation has the right to treat with third parties for the transfer of cavalry horses. All the regulations concerning cavalry horses in general, of course, apply to such third parties.

83. Controversies arising from the application of the regulations concerning cavalry horses are settled by the Swiss military department, and the decisions of the Federal Council in respect thereto are final.

84. An ordinance of the Federal Council will determine, in accordance with the prescriptions of the present chapter, the rights and obligations of the Confederation and of prospective buyers.

85. Officers furnish their own horses.

Other horses and mules necessary for the service of instruction in the schools and in the military courses are furnished by the military administrators.

86. With the colors, horses and mules are fed and stabled at the expense of the Confederation.

8. Personal Armament and Equipment—Equipment of Organizations—War Material.

87. The Federal Assembly fixes the regulations relative to personal armament and equipment, equipment of organizations, and war material. The Federal Council formulates the orders to carry out these regulations.

88. The soldier's personal armament and equipment is issued to him gratuitously. Recruits receive new arms and equipment, or property of an equivalent value. Arms and equipment that have been lost or worn out in the service must be replaced without delay.

89. The Confederation turns over the machines and their accessories to cyclists incorporated in the Elite upon payment of half the price of purchase. A regulation of the Federal Council determines the rights of the Confederation and of the cyclists in such transactions.

90. The soldiery are armed and equipped according to law in the Canton in which they are recruited, or by the Canton of their origin, if during recruitment he has permanently changed his domicile.

91. According to law, the individual keeps his arms and equipment as long as he is obliged to serve. He is required to keep them in good condition. He is responsible for losses that have occurred through his neglect, or for damage that has similarly occurred. It is prohibited to use the personal equipment outside the service without authority.

92. Personal arms and equipment are the property of the Confederation. The individual may not sell them. They can neither be seized nor sequestered.

93. Personal arms and equipment are taken over from men who are not in position to keep them properly, who demonstrate this unfitness, or those who are discharged before their term of service has expired.

94. The men who have completed their terms of personal service, upon discharge from the army become the owners of their personal arms and equipment.

95. Officers provide their own clothing. The ex-

penses therefor are remitted by the Government according to a special tariff to be established by the Federal Council.

The Confederation furnishes them gratuitously with their personal arms and equipment, and in the case of mounted officers also furnishes horse equipments.

96. Organization equipments are furnished to the staffs and to the organizations by the Confederation.

The latter replaces all such equipment lost in the Federal service and renders a return thereof. Material lost in the cantonal service and reparation rendered necessary by this service, are paid for by the Cantons.

97. According to law, the organizations' equipments are kept in the places of assemblage. Each staff and each organization has its individual place. The material is arranged in such manner as to facilitate its easy removal in time of war.

Wagons necessary to complete the equipments of the organizations are rented.

98. The Confederation must at all times have a supply of rations and munitions on hand adequate to the needs of war.

99. The personal arms and equipments given to soldiers are inspected each year. They take place:

1. During the school or instruction courses for all soldiers, officers, and noncommissioned officers called to the colors during the year.

2. In the communes, upon days specially selected, for soldiers, officers, and noncommissioned officers not called to the colors during the year. The soldiery so inspected receive neither pay nor subsistence.

In the school and instruction courses the inspections are performed by officers, with the assistance of professional men. In the communes they are performed by the commander of the "arrondissement" (district), with the assistance of officers.

Small arms are inspected by what is known as the "controleur d'armes," who is an employee of the artillery charged with the reception, sale, maintenance, etc.,

of small arms in the small-arms factories and in the artillery directions.

Arms and parts of equipment that have deteriorated must be immediately replaced or repaired.

100. The inspection of the Landwehr and of the Landsturm is profited by to complete and audit the rolls and to incorporate the men who enter into the various classes of the army.

101. Every two years the equipments of the basic and tactical units and of the battalions of infantry and engineers is inspected by the commander of these troops. The remainder of war material is inspected by the chiefs of the branches of the military department or by the officers which it shall designate.

These inspections have for object the assurance that the material is carefully stored, complete, in good condition, and ready for a rapid mobilization.

Part 3.

INSTRUCTION OF THE ARMY.

1. Preparatory Instruction

102. The Cantons provide for a course in calisthenics for young men during their school courses. This calisthenic exercise is administered by instructors trained for the work in normal schools and in the schools for physical training masters instituted by the Confederation. The Confederation exercises ultimate surveillance over these provisions.

103. The Confederation encourages all associations and, in general, all efforts toward the bodily development of its young men from the time of their leaving school until incorporated in the army.

A physical examination takes place at the time of enlistment.

The Confederation imposes restrictions upon the preparatory physical instruction. It organizes the schools for monitors.

104. The Confederation similarly grants subsidies

to associations and, in general, for all attempts having as object the military instruction of its young men before the age of military service. The Confederation sees that instruction in firing is made of primary importance, and gratuitously furnishes arms, ammunition, and equipment. The Federal Council fixes the necessary regulations.

2. Corps of Instruction—General Dispositions.

105. A corps of instructors is organized for the direction and instruction of recruits and for the instruction of officers and noncommissioned officers in the special schools.

The Federal Assembly determines the number of instructors for each arm.

106. At the head of the corps of instructors of each arm is placed the chief of that branch in the Swiss military department. A district instructor directs in each divisional district the instruction of the infantry recruits, officers, and noncommissioned officers of the district.

107. The instructors may be employed in other branches than their own . . . in the central schools and other similar schools, and in military administration. They are employed successively in these different functions, in so far as their ability and circumstances permit.

Instruction officers are incorporated in the service and are promoted as other officers.

108. Instructors of the different arms are ordered to the schools for recruits and noncommissioned officers for the instruction of fortress troops. They are at the orders of the chief of artillery while on this duty.

109. The instruction of the basic, tactical, and administrative units, as well as the repeating courses, are intrusted to the officers of the organizations.

110. The military department determines the general ends to be attained by military instruction.

Upon this basis, the commanders of troops and schools arrange the programs of instruction, which

have been intrusted to their supervision, and submit them to their immediate superior.

111. The central schools and the schools for the officers of the General Staff must be so organized as to insure the uniformity of the instruction.

112. The dates of the instruction courses, and, in particular, the schools for recruits, are fixed in such manner as to inconvenience as little as possible the officers employed therein in their professional duties or civil occupations.

113. In the Federal Polytechnic Institute is a department of military sciences which permits officers, especially those acting as instructors, to extend their military instruction.

114. Any service lacking must be immediately replaced. An ordinance of the Federal Council specifies certain occasions when this law may be annulled.

115. The time taken up in organization and in discharging is not to be included in the time limiting the duration of the courses. Such time may, as a general rule, be reckoned as about two days for the infantry and cavalry and not more than three days for the other arms.

116. The military authorities are authorized to employ the services of drummers, trumpeters, nurses, armorers, and farriers, etc., necessary in the instruction schools.

117. The commandants of the schools and instruction courses make out reports on the conduct of this latter class, to which an inspector must add his approval. This report is sent to the Swiss military department through military channels.

3. Instruction of Recruits.

118. The recruiting schools are intended to mold the recruit into a soldier. They also serve the purpose of giving practical instruction to noncommissioned officers.

Their duration is: For infantry, 65 days; for cavalry, 90 days; for artillery and fortress troops, 75 days;

for sanitary, veterinary, and transportation troops, 60 days.

119. Drummers, trumpeters, armorers, orderlies, etc., receive their instruction either in the schools for recruits or in special courses ordered by the Federal Council. In the latter case, they take only the first 40 days of the recruiting schools' course. Nurses take, besides the course at the recruiting schools, a hospital course, whose duration is fixed by the Federal Council.

4. Repeating Courses.

The repeating courses of the Elite are annual. They last 11 days (14 days for artillery troops and fortress troops).

120. In cavalry soldiers, noncommissioned officers, and commissioned officers spend only limited periods in these courses of repetition. Soldiers, officers, and corporals take part in only 7 in all branches except the cavalry, where they take part in 8. Noncommissioned officers of the grade of sergeant and above take part in 10. In these courses are included those followed in the inferior grades.

121. In the repetition courses of the Elite the exercises alternate between small units, with and without arms, and the larger units.

122. In the Landwehr all the branches (cavalry excepted) are called to a repeating course, lasting 11 days, every four years. However, enlisted men, officers, and corporals take only one course of repetition in the Landwehr. Men of the Landwehr incorporated into units of the Elite perform service with those units.

123. In case of reorganization of units, new armament, or other analogous circumstances, the Federal Assembly is authorized to order special courses and to fix the duration thereof.

It is authorized, also, to order special drills or tasks, not to last over three days, for the Landsturm. In case of emergency the Federal Council may in certain regions call out the Landsturm in similar manner.

5. Obligatory and Voluntary Firing Drill.

124. Officers, noncommissioned officers, and enlisted men of the Elite and Landwehr, armed with gun or musket, and subalterns of these classes of troops are required to perform, in firing associations, the prescribed firing drills annually. Whoever fails is called to a special court, without transportation allowances.

125. Subsidies are granted by the Confederation to further practice in the associations for firing that are administered in accordance with Government prescriptions. The Confederation institutes courses for shooting instructors.

126. In similar manner the Confederation grants subsidies, according to their importance, to other societies having as object the development of military efficiency, on condition that they submit to regulations laid down by the Confederation and to its control.

6. Instruction of Noncommissioned Officers.

127. Soldiers and apt men proposed as noncommissioned officers, take a course for noncommissioned officers. This schooling lasts 20 days in the infantry, sanitary service, and for the subsistence personnel. It lasts 35 days for the artillery, engineers, cavalry, and fortress troops.

The men are sent to the noncommissioned officers school as soon as nominated therefor by their superiors. The proposing of their names is made as follows: At the recruiting schools, by officers of their organizations, or the instructors; at the courses of repetition, by officers of the organization to which the man proposed belongs.

128. Corporals recently appointed, pass through a recruiting school. Noncommissioned officers proposed for one of the schools for officers are freed from this obligation.

129. Noncommissioned officers proposed for the grade of farrier take a course for farriers lasting 30 days.

Farriers recently appointed pass through a recruiting school. Noncommissioned officers proposed as staff secretaries take a course at the school for staff secretaries, lasting 30 days.

7. Instruction of Officers.

130. The future officers are instructed in a school for officers. The duration of this school is as as follows:

1. Eighty days in the infantry, cavalry, and fortress troops.

2. One hundred and five days in the artillery and engineer troops.

3. Sixty days in the transportation troops.

4. Fifty-five days in the sanitary troops, subsistence, and veterinary troops.

The schools for officers may be subdivided into two parts in the case of engineer and artillery troops.

131. In order to be ordered to a school for officers, it is necessary that the individual be a noncommissioned officer. The order is formulated upon the individual's being proposed as follows: At the schools for noncommissioned officers, and the schools for recruits by the troop officers, or by the instructors; at the courses of repetition by officers of the unit of the proposed individual.

Noncommissioned officers ordered to the sanitary and veterinary schools must submit to an examination required for doctors, veterinarians, and pharmacists.

Ordering to the schools for sanitary and veterinary officers is made by the chiefs of the sanitary and veterinary troops without their having to go through a lower school.

132. Recently nominated lieutenants take the course at the recruiting schools. Doctors and veterinarians take these courses in the recruiting schools of the other arms.

133. Line officers appointed as quartermasters receive their technical knowledge in a 20-day course. They also take half the course of the recruiting schools.

134. Officers mentioned for advancement go to schools as follows:

1. Subaltern officers of infantry, cavalry, artillery, engineers, and fortress troops mentioned for advancement to the grade of captain go to a Central School I, for 30 days.

2. First lieutenants of infantry, cavalry, artillery, engineers, fortress troops, subsistence troops, and transportation troops go to a recruiting school as organization commanders.

3. Captains . . . a Central School I, of 50 days. This last may be divided into two periods.

To be ordered to the schools mentioned in this article, officers must have received in a preceding course, certificates of fitness for advancement.

Captains in the sanitary service, veterinary service, subsistence, transportation, and commissionary services, may be ordered through a special school in place of the Central School II.

135. The Federal Assembly will institute in addition to the above, schools for firing, and tactical and technical courses for officers. Officers may also be called to schools or courses of other arms than their own, or to special services.

136. The Federal Assembly establishes the necessary schools and courses for the instruction of officers of the field post and telegraph services, and transportation service.

8. The General Staff.

137. The following schools are intended for the instruction of the General Staff:

(1) The General Staff School I, of 66 days, for future officers of the General Staff. (See art. 43.) It is divided into two parts.

(2) The General Staff School II, of 42 days, for captains. (Art. 43.)

(3) The General Staff School III, of 21 days, for officers that have passed through the Schools I and II.

Line officers may be ordered to these schools. The Federal Assembly may institute other courses.

138. A certain number of officers of the General Staff are ordered on staff duty each year. Line officers may also be so detailed.

130. Officers of the General Staff attached to headquarters take part in all exercises of the latter. Other officers of the general staff may be temporarily assigned for this duty. Officers of the General Staff are also to be called to the schools and courses of the other arms.

140. Railroad officers take a course of 20 days and are then ordered according to existing needs to work on the General Staff or upon special services.

Other officials may be similarly employed.

9. Staff Duties.

141. The staffs are called out every two years for tactical maneuvers of 11 days' duration. These maneuvers are directed alternately by the army corps commander and by the divisional commanders.

The military department designates the staff officers who are to take part in these operations.

142. Strategic exercises take place every two years, lasting 11 days. They are directed by an officer designated by the Swiss military department. The army corps commanders, the divisional commanders, their chiefs of staff, the commanders of fortified places, and other officers designated by the military department take part in these exercises.

143. Engineer officers on duty in that branch are ordered on this duty in turn.

10. Inspection.

144. The following are inspected:

(1) The repetition courses . . . by the immediate superior of the commander of the course.

(2) Exercises directed by army corps commanders. by the chiefs of the branches or by the chief of the military department.

(3) The schools and courses directed by the commander of the fortified places . . . by the commander of the army corps in which the school, etc., is situated.

(4) The schools organized for army corps, divisions, and garrisons . . . by the chiefs of these units.

(5) All other schools, by an army corps commander, a divisional commander, or by a chief of one of the branches, designated by the Swiss military department.

145. In case of an inspector's failure to perform his functions the military department designates another.

Part 4.

MILITARY ADMINISTRATION.

1. The Confederation and the Cantons.

146. The ultimate direction of military administration devolves upon the Federal Council. It exercises it through the Swiss military department as intermediary. The cantonal military authorities exercise, under the surveillance of the Confederation, the administration of military affairs having to do with the Cantons.

147. The Federal Council shall formulate the ordinances for the execution of the present laws. It approves the service and drill regulations, with the exception of administrative regulations, whose approval is left to the Federal Assembly.

148. The Federal Council rearranges the territory of the Confederation into divisional arrondissements, limited if possible, in such manner that each arrondissement shall contain a military division. The limits of these arrondissements must coincide as nearly as possible with the Cantonal boundaries.

149. The Cantons are divided into arrondissements, corresponding generally to the recruiting zone of a regiment of the Elite. When this division is not possible, arrondissements shall be created for battalions or companies. The Federal Council makes these divisions upon the recommendations of the Cantons.

150. The Cantons must require of each citizen of age

to perform service, either sojourning or permanently established in the Canton, to give proof of the accomplishment of his military obligations. The military notebook is made use of in this connection. Every authorization of sojourn or of domicile is made known to the military chief of the Canton where the individual was originally incorporated when the man is in the cantonal service; or to the chief of the branch to which the man belongs when he is in the Federal service.

151. The Cantons have control of the matriculation of men compelled to perform military service. The registry thereof is at the base of all military control.

The Cantons have control of men assigned to the complementary services.

The Federal and Cantonal military authorities as well as chiefs of staffs and the commanders of organizations have control over their staffs and basic units.

The Federal Council regulates the formation of the muster rolls. It supervises their formation.

152. The Cantons designate arrondissement commanders charged with the maintenance of the rolls and in general all military relations with men performing obligatory service. The arrondissements are subdivided by the Cantons into sections according to requirements, each section being commanded by a chief of section.

153. The Cantons form battalions of infantry, squadrons of dragoons, companies and battalions of the Landsturm and of the complementary service.

When the effective strength of a Canton is sufficient for the formation of battalions, companies or squadrons of dragoons, the Federal Assembly shall decide what shall be the formation.

154. The Confederation forms such basic units, tactical units, administrative units, and staffs as are not formed by the Cantons. It organizes the auxiliary services.

155. The Confederation assigns to the Cantonal organizations the officers, noncommissioned officers, and soldiers as they are in need of.

156. The Cantons appoint the officers of the basic units and the officers of infantry that are on the staffs of fusileer battalions composed thereof.

The Federal Council appoints officers of battalion staffs, and also company officers when the company is formed of men from different Cantons.

157. When a Canton is not in position to furnish to its organizations the prescribed quota of officers and noncommissioned officers, the Federal Council assigns to it supernumerary officers and noncommissioned officers of other Cantons.

158. The Confederation furnishes the armament and equipment of organizations, and in general, all war material.

The Cantons furnish the personal equipments of Cantonal and Federal troops, in conformation with regulations laid down by the Federal Council.

Provisions enough for a year must always be on hand, as well as a reserve of personal arms and equipment.

The Federal Assembly fixes the amount which is to be paid the Cantons for the furnishing, replacing, and upkeep of personal equipments.

159. The Cantons distribute and control the upkeep of material of the basic and tactical units of the Canton. The remainder of the war material is controlled by the Confederation.

The arms and parts of personal equipment taken over from soldiers are kept in shape by the Cantons, and stored in such manner that when they are required they may be reissued to these individuals without delay.

Equipment turned in by men before their term of service has expired, is added to the reserve equipment.

160. The Federal Council regulates the raising of troops. The raising is done by the Cantonal authorities.

161. Demands for exemption from military service are not in accordance with regulations of the Federal Council: by the Cantonal authorities, for Cantonal

troops, and by the Federal authorities for Federal troops. The demands for exemption from military service by officers are, wherever possible, submitted to their direct superiors for his approval.

162. When a Canton does not fulfill its obligations the Confederation supplies it with the necessary funds.

163. The Confederation disposes of the personal arms and equipment, as well as the material of organizations and war material. Reserving the rights of the Confederation, the Cantons have the same rights with respect to the rights and needs of the Cantons.

164. Food and drink destined for troops in the Federal service are exempt from all taxes or excises by the Cantons and communes. The Cantonal and communal monopolies do not operate upon those articles of which the troops have need.

Military establishments and shops, as well as all property of the Confederation used for military purposes, are not taxed by Cantons or communes.

The Cantons may not tax any works intended for national defense, nor employ them for other purposes.

165. The machines of the cyclist corps, and autos employed in the military service, are exempt from taxes by Canton and commune.

166. The Cantons are charged with the collection of the military imposts. They turn over half the net profit to the Confederation.

2. The Military Administration of the Confederation.

167. The chief of the Swiss military department directs the cabinet of the military department. The cabinet, in accordance with instructions of the chief, expedites the decisions of the department, and the plans which it submits to the Federal Council. It carries on the correspondence of the department and classifies the records. The secretary of national defense is a member of the cabinet.

168. The following, as chiefs of branches, are placed under the orders of the Swiss military department.

(1) Chief of the General Staff service.
(2) The chief surgeon.
(3) Chief veterinary.
(4) Chief of the commissary service.
(5) Chief of the military technical department.
(6) Superintendent of war material.
(7) Chief of the topographical service.
(8) Chief remount officer.
(9) Chiefs of infantry, artillery, cavalry, engineers, and fortress troops.

The necessary officials and employees are assigned to these chiefs.

169. The following are controlled by the above chiefs:

(1) Reports and propositions concerning the affairs of their branches, which must be transmitted through the military department.

(2) The preparation of orders, regulations, and public bills.

(3) The determination of the annual budget, of their branch, and reports on their administration.

The department chiefs correspond with other military authorities and with other officers in the name of the military department. They execute the decisions of the department and assist liberally (within the limits of their annual budget and the general instructions of the department) the administration of their branch.

170. The General Staff service has the following powers:

(*a*) Preparation of the mobilization and concentration of the army in time of war, and in general, all preparation for war.

(*b*) Reports and propositions upon all questions concerning the national defense, the army as a whole, and the staff of the army.

(*c*) A supervision of the propositions having to do with the maneuvers of the large units and the exercises of the higher staffs.

(*d*) The organization and direction of the schools

and courses for officers of the General Staff and staff secretaries; the giving of certificates of capacity to captains of the General Staff and to staff secretaries: decisions upon demands for exemption from service by officers of the General Staff and staff secretaries.

(*e*) Propositions concerning the assignment of officers of the General Staff and staff secretaries to the various staffs after consultation with the commanders thereof.

(*f*) The maintenance of the General Staff at its effective strength.

(*g*) The preparation for war of railroads, the transportation service, the territorial service, the field post, and telegraph service, and the instruction of the officers of these auxiliary services.

(*h*) All available information concerning the Swiss Army and foreign armies; the geographical features and statistics of neighboring countries.

(*i*) The administration of the military library and the collection of military maps.

(*j*) Supervision of, and propositions concerning, the construction of military maps.

171. The prerogatives of the chiefs of infantry, cavalry, artillery, engineers, and fortress troops are as follows:

(*a*) The study of all questions concerning their arm.

(*b*) The administration of units and staffs formed by the Confederation as well as the auxiliary services.

(*c*) The supervision of the instruction of their arm; the general organization, and as far as possible, the direction of the schools and courses of their branch, without overstepping the restrictions of article 109.

(*d*) Decisions upon demands for exemption from service, in so far as such decisions do not encroach on the authority of the Cantons.

(*e*) The employment of personal instruction.

(*f*) The examination and transmission of matters dealing with officers, such as appointments (nomina-

tions, promotions, incorporations, discharges); the power of conferring certificates of capacity for the nomination of captains and subaltern officers.

The following have the same prerogatives:

(*a*) The chief of the sanitary service. (*b*) The chief of the veterinary service. (*c*) The chief commissary officer of the field forces for the troops of the subsistence department and officers of the commissary department.

172. The infantry arm organizes and directs the central schools and has supervision over the preparatory military instruction and the firing courses.

173. The cavalry arm buys, trains, and turns over to the personnel of the cavalry all mounts needed by them, manages the control and administration of these horses, and his supervision over the remount stations.

174. The artillery arm supervises and instructs the train personnel and the orderlies of officers, and determines their assignment to the staffs of units.

175. The engineer arm directs, in accordance with an understanding with the General Staff, the work of all engineer officers for the preparation for war, carries on the service of mines, supervises the appropriations for explosives, of instruments and material for demolition work, prepares the various types of fortifications to be constructed in time of war.

176. The service of fortifications maintains, completes, and supervises all permanent fortifications. The administrations of fortifications, the bureau for the construction of fortifications, and the bureau for firing in permanent fortifications are subordinate to it. Fort guards for the supervision and upkeep of works of construction also assist the administrations of fortifications. The Federal Council fixes the regulations applicable to these guards.

177. The sanitary service directs the sanitary personnel of the army, including persons voluntarily attached; military insurance; physical examinations of men performing compulsory service.

178. The veterinary service directs all work of this arm. Supervises the examination, estimates, and depreciations of horses, regulates the claims arising therefrom, instructs and incorporates farriers.

179. The quartermaster corps (*"Le commissariat des guerres"*) is the central organ of the service of accountability and of subsistence for the army. It receives and administers the appropriations for war supplies and provides for their replacement. The army sales stores and depots of supplies are under its orders. It directs the management of the barracks of all enlisted men, supervises the service of Government printing, controls the returns of the intendancy of all war material.

180. The technical military section is charged with the furnishing and perfecting of war material. It furnishes the personal equipment not furnished by the Cantons; extends the scope of ordinances and regulations concerning war material and personal equipments. It turns over to the service of the intendance of war material and to the service of fortifications the finished articles.

The military depots (factories, workshops, etc.), including powder factories, proving grounds both for the fixed and movable elements of artillery, and the control of all munitions is in the hands of the technical military department.

181. The service of the intendance of war material provides storage for war material as shown by the inventory taken by the commissary corps, the material being turned over to it by the technical military section It turns over to the Cantons the material of the Cantonal units and supervises the maintenance of that remaining in the hands of the Federal service, directs the service of munitions and explosives in the arsenals and Federal depots, and superintends same in the Cantonal service. It provides the schools with munitions and materials. In similar manner this department handles the personal equipments to be delivered to the individuals by the Confederation. It disburses the arms

and personal equipment of officers. It has supervision over the equipment depots of the Cantons and over the arms and personal equipments in the hands of troops.

182. The topographical department has charge of the triangulation of the country. It constructs and turns over to the army maps to be used by it. It may also draw up maps not strictly of military importance.

183. The remount service is charged with the purchase, training, and delivery of officers' horses. It furnishes horses for the instruction service.

184. The Federal Council may, by way of a resolution, combine or modify the prerogatives of certain divisions of the military department.

3. Command.

185. The military administration of the Confederation must be organized in such manner as to permit the commanders of basic, tactical, and administrative units to exercise the necessary influence on the training and preparation for war of their units.

186. The commanders of the above units are responsible that their organizations are at all times at their effective strength. They control the authority of keeping arms and personal equipments complete and in good condition in their organizations. To this end they may require written reports in this connection from their subordinates.

187. They control personally or through their chiefs of staff measures taken for the assembling and concentration of troops of their commands.

188. The reports and propositions of the commanders of troops are sent to the superior military authority through military channels.

An account of these reports will be kept, as far as possible, beginning at the time of the establishment of the annual budget; also of the elaboration of the instructions relative to recruiting and of plans for instruction; similarly with the details to the special schools and courses.

189. An ordinance of the Federal Council regulates the keeping of records of service of soldiers and of the rating of officers and noncommissioned officers, as well as the control of the effective strength of organizations.

It determines the spheres of activity and the service relations of officers.

It fixes the regulations assigning the bureaucratic personnel to the service of organization commanders.

190. The Federal Council fixes the allowances of the commanders of the administrative units.

191. A commission of national defense, composed of the commanders of the tactical units, the chief of the General Staff service, and the chief of infantry, deliberates on questions of national defense, the chief of the military department presiding. As soon as the general in chief is named the commission's functions cease.

192. When the commission deliberates upon the establishment of certificates of capacity for officers, or upon the promotion and incorporation of higher officers upon nomination by the Federal Council, or upon the retirement from command of a higher officer, the division commanders and chiefs of the different arms interested, and who do not belong to the commission, take part in said deliberations. Propositions emanate from the general in chief after he has been appointed.

193. The opinions of the chief of the branch and the commander of the organization to which the officer concerned belongs are submitted to the commission of national defense.

To this end the secretary of the commission of national defense collects and classifies the records of all officers after reaching the grade of captain. He has a roll showing the length of service of officers and the time of their incorporation. The rolls and records are at all times at the disposal of the commission of national defense.

194. At least once a year the commanders of admin-

istrative units are brought together for debate upon ameliorating measures for the army, the chief of the military department presiding. Certain chiefs of branches also take part in these deliberations, such chiefs to be selected by the military department.

Part 5.

ACTIVE SERVICE.

1. General Dispositions.

195. The army is charged with the duty of insuring the defense of the country against foreigners and with that of maintaining tranquillity and order within. (Federal constitution of May 29, 1874.)

196. The army is at the disposal of the Confederation. The Cantons may control portions of the army in their territory when the Confederation itself does not.

197. The Cantons bear the expenses of all Cantonal levies of troops. Pay, subsistence, and lodging are furnished by the Cantons in accordance with Federal regulations.

198. The Federal Council orders the raising of troops for active Federal service. It supervises this raising. All troops raised for the Federal service take the military oath.

199. The Federal Council may assign troops for picket duty. When placed on picket duty no military person may leave the country without the authority of the person whom he relieves.

200. The mobilization and assignment for picket duty of a unit are obligatory on all officers, noncommissioned officers, clerks, and soldiers of the unit unless they are specially excepted.

201. In case of war, or if war threatens, the Federal Council may order the recruitment of men fit for service of 19 and 18 years of age.

202. In case the raising of troops is ordered the Federal Council may cause the officials, employees, and

workmen of the military administration (military establishments and shops included), and of the public transportation service, to submit to the military laws.

203. In time of war citizens not called upon for military service must put their persons at the disposal of the nation and exert their utmost in its defense. In case of war or of imminent danger of war and to insure the execution of military order everyone is obliged to put his real and personal property at the disposal of the commanders of troops and of the military authorities. The Confederation allows reimbursement for the whole.

2. The Commander in Chief.

204. The Federal Assembly names the general in chief as soon as an important raising of troops is ordered. The general in chief exercises supreme command of the army. The Federal Council instructs him in the reasons for which the concentration was called.

The general in chief is never relieved before the troops except upon demand of the Federal Council.

205. The Federal Council names the Chief of Staff of the army after consultation with the general in chief.

206. When an important raising of troops is ordered the Swiss military department assumes command of the army until the general in chief is appointed.

207. The general in chief temporarily prevented from exercising his command is replaced by the senior corps commander. If the latter be not on hand, then the general is replaced by the Chief of Staff.

208. The general in chief orders all military measures which he considers in accordance with and necessary to the end to be accomplished. He disposes at his pleasure of all forces of the country either in men or in material.

209. The general in chief fixes the order of battle of his army without being bound by the present law.

He is authorized to retire or assign officers from or to commands temporarily.

210. The Federal Council orders and sees to the execution of the raising of additional troops required by the general in chief.

211. The Swiss military department directs the territorial service (corresponding to the service of the interior in our own army).

3. Animals and Vehicles.

212. The Confederation has the right of using for the mobilization of the army all horses, mules, and means of transportation of the country.

213. If the national defense requires it, the Federal Council decrees the assignment of horses, mules, and means of transportation to the picket service. This assignment includes the interdiction of private rights in respect thereto and includes the exportation thereof.

When the assignment is decreed, the communes proceed to immediately have made a revision of their returns.

As soon as the order directing the picket duty has appeared no one may do away with horses, mules, and means of transportation without the permission of the military authorities, whether they be his property or that of a third party. Such offenses are judged by the Federal penal court, and the penaltjes vary from a fine of 100 to one of 10,000 francs, and there may be in addition an imprisonment of six months or more.

214. As soon as picket service is ordered an examination is immediately made of all horses, mules, and means of transportation, to determine their military value. The animals and material considered unfit for service may be sold by their owners.

At the same time, horses, mules, and means of transportation are assigned to units and to staffs.

215. The raising of horses, mules and means of transportation takes place in accordance with the prescriptions for mobilization.

The communes are required to put the number of horses, mules, and vehicles fit for service agreed upon at the disposal of the commander of the place, in good time. The supernumerary horses and mules are sent to the depots for the same.

216. The Confederation pays the communes (ultimately the owners) an indemnity for the employment, depreciation in value, and loss resulting from the requisitioning of horses, mules, and vehicles for the service.

Operation of the Transportation Service in Time of War.

217. The Federal Council, or, after he is designated, the commander in chief, has the right of using the railroads of the country for military purposes in time of war, or danger of war. The order decreeing this confers upon the military authorities the disposition of the railroads, their material, their personnel, as well as their direction and operation. The personnel may not leave the service. They are subject to the military laws after the military authorities have taken over the railroads.

218. The Federal Council, or, after he is designated, the general in chief, may order the installation of new tracks, or the destruction of the old ones.

219. The Confederation reimburses the railroads for losses suffered through the military control thereof. In cases of dispute over the amount of such indemnity between the Confederation and a shipping concern, the Federal tribunal's decision is final.

220. The prescriptions above cited apply equally to steamboats.

Transitory and Final Dispositions.

221. The present regulations concerning the matters mentioned herein will continue in effect until the promulgation of the fixtures of the Federal Assembly and the ordinances of the Federal Council provided by the present law.

Prescriptions contrary to the present law shall be abrogated when it shall be put into operation.

222. The Federal Council is charged, in conformation with the dispositions of Federal law of June 17, 1874, concerning the popular vote upon the laws and decrees of the Confederation, with the publication of the present law, and with the duty of putting it into operation.

GEORGE WASHINGTON
YORKTOWN
ISRAEL PUTNAM
BUNKER HILL
ANDREW JACKSON
NEW ORLEANS
JOHN E. WOOL
BUENA VISTA
NATHANAEL GREENE
GUILDFORD COURT HOUSE
ANTHONY WAYNE
STONY POINT
WILLIAM H. HARRISON
TIPPECANOE
WILLIAM J. WORTH
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D
PEC
WILLIAM T. SHERMAN
ATLANTA
ULYSSES S. GRANT
VICKSBURG
WILLIAM R. SHAFTER
SANTIAGO
LEONARD WOOD
SAN JUAN
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RY
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